

MANUFACTURERS' RECORD

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RAILROAD AND FINANCIAL NEWSPAPER.

Manufacturers' Record

in
1893

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Baltimore, December 30, 1892.



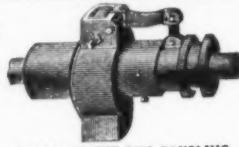
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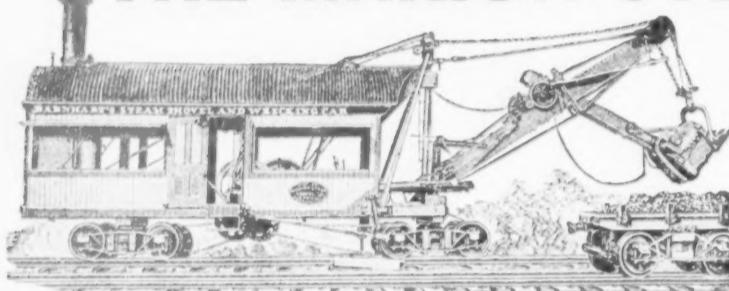
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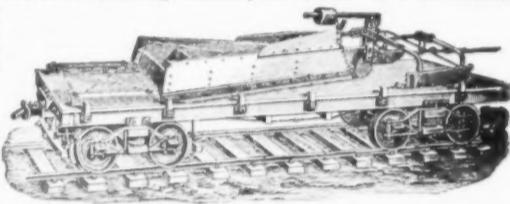
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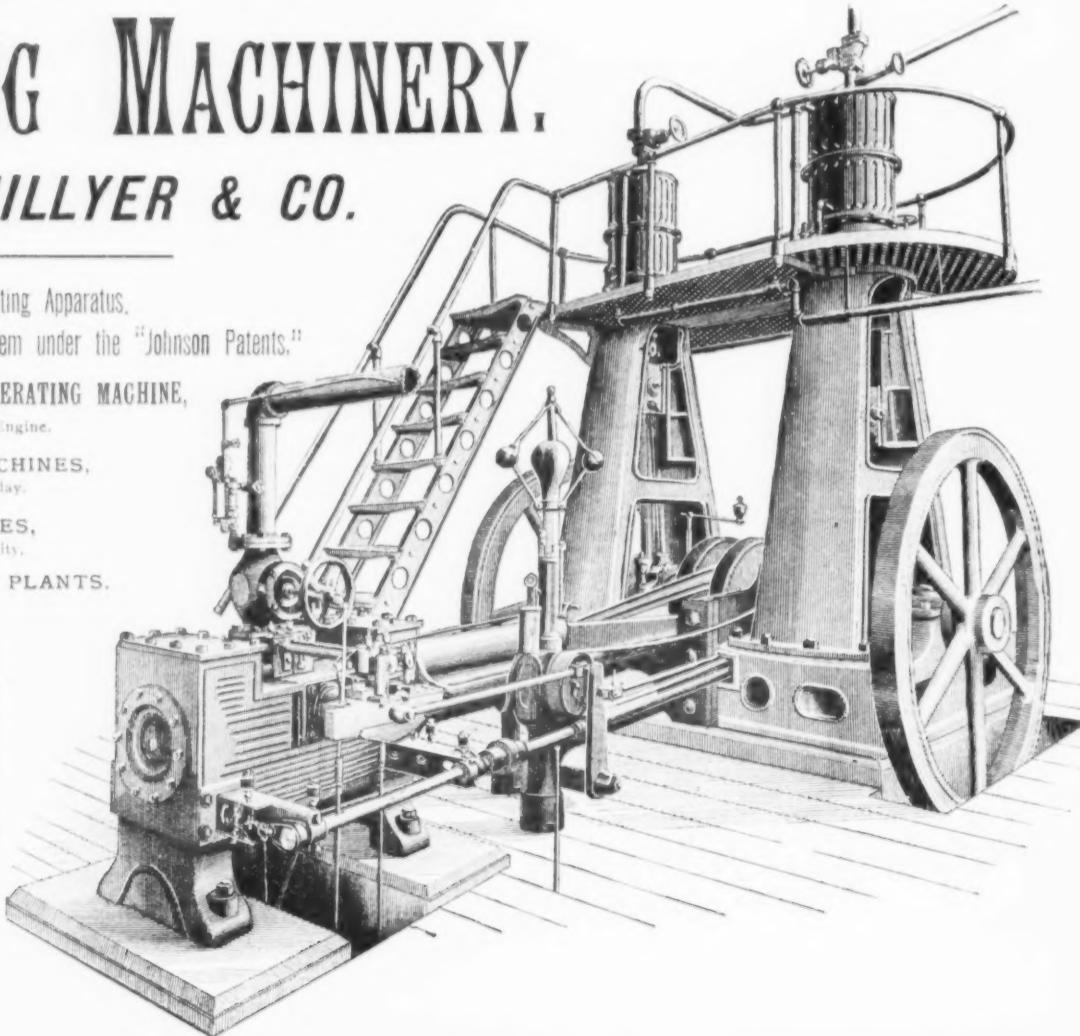
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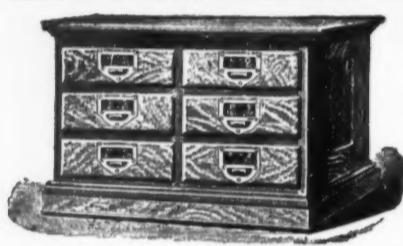
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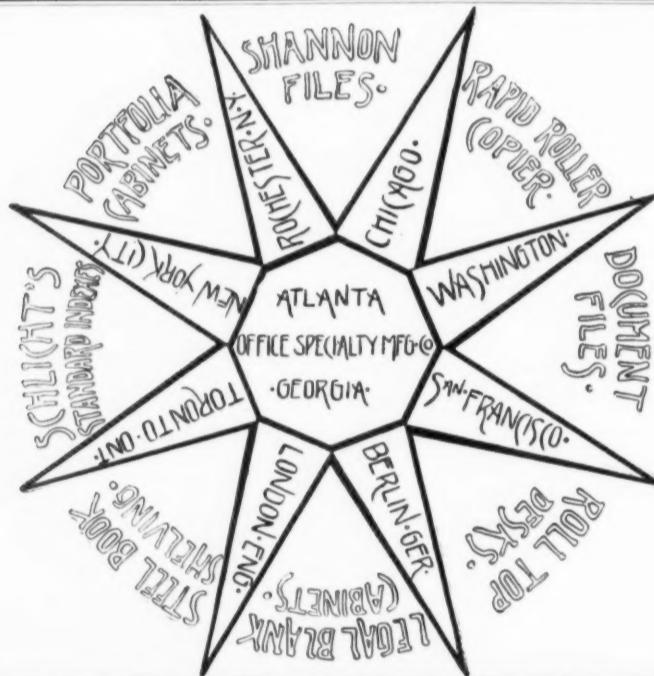


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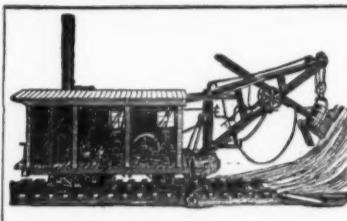
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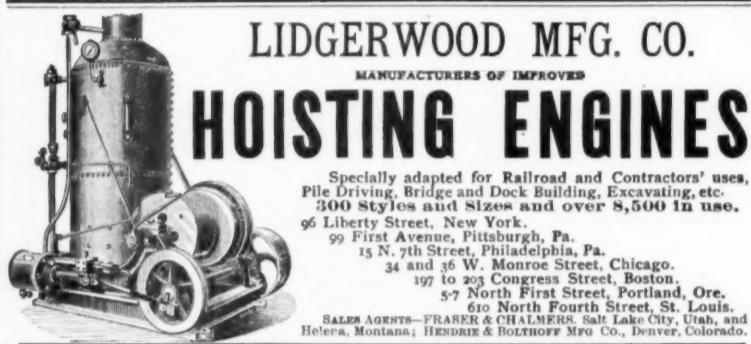
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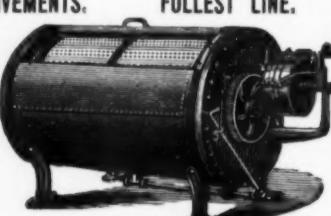
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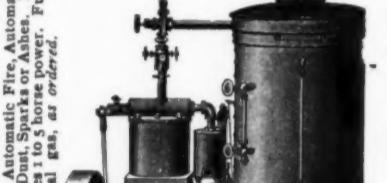
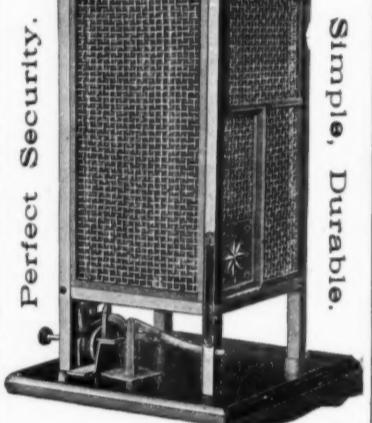
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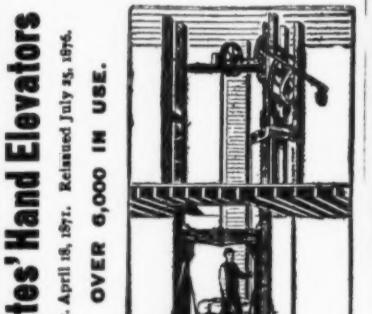
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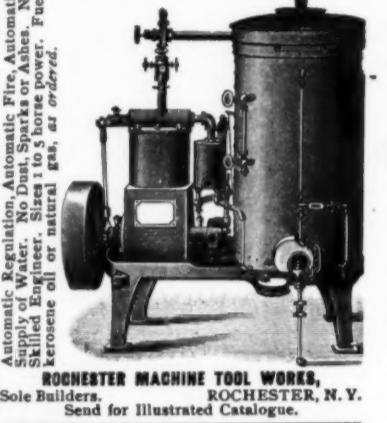
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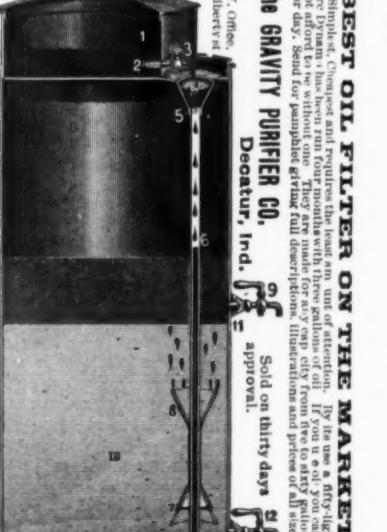
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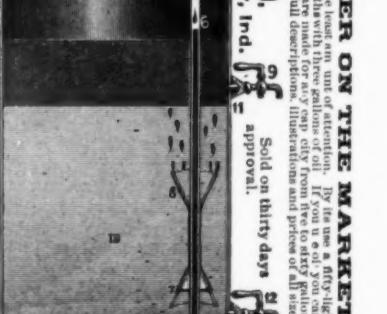
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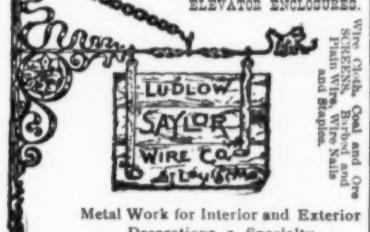
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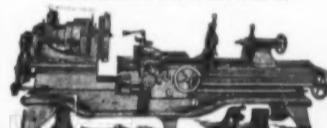
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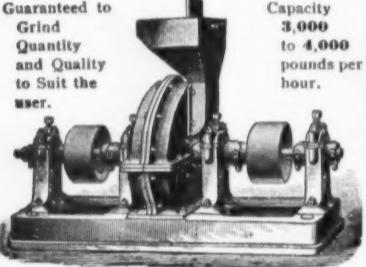
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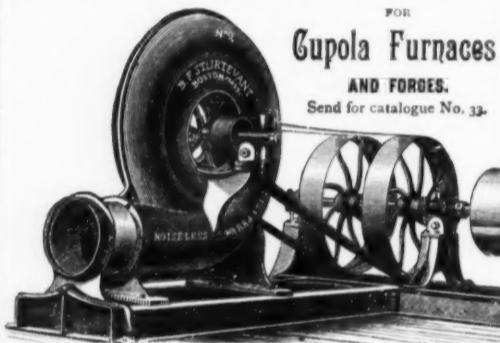
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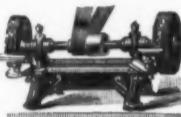
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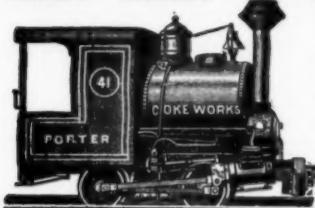
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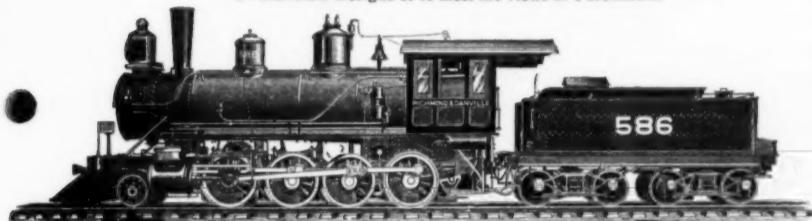
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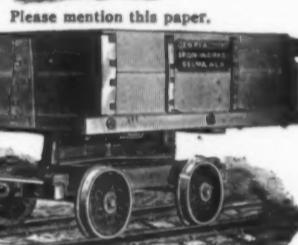
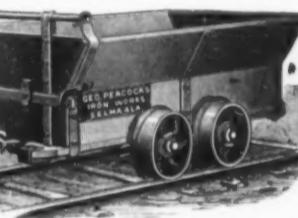
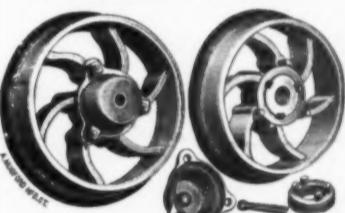
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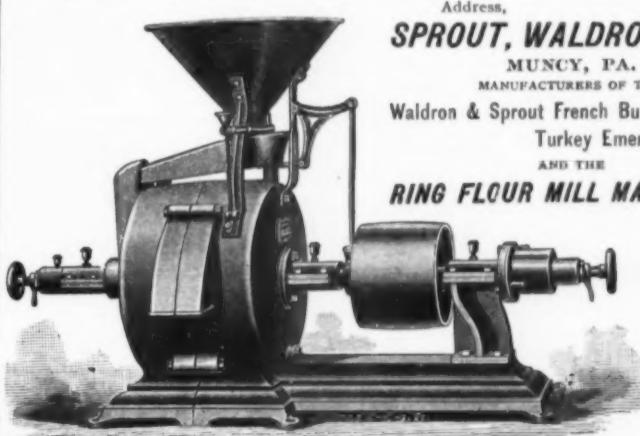
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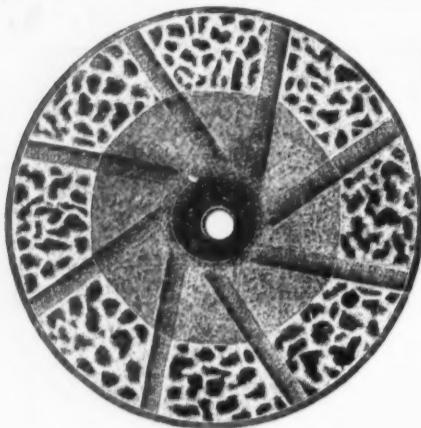
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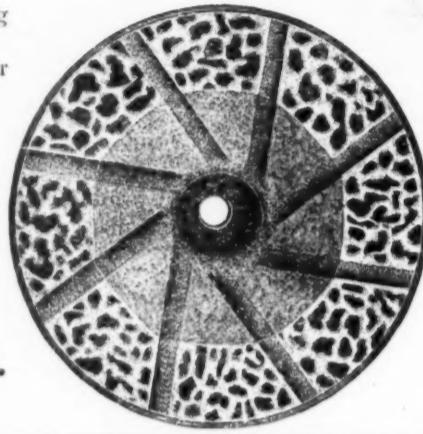
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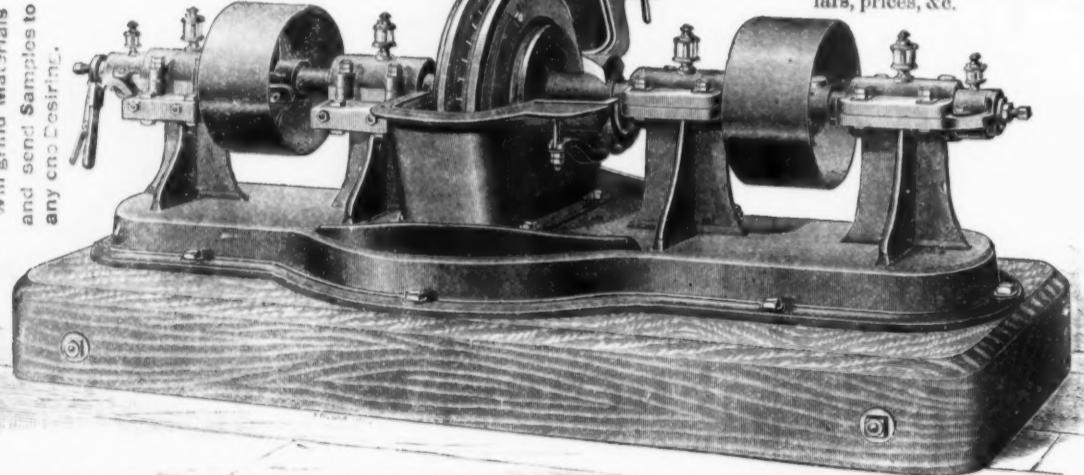


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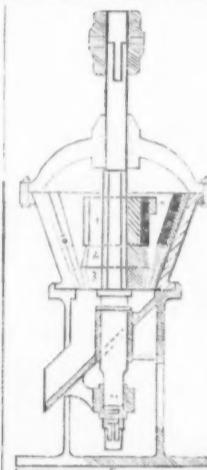
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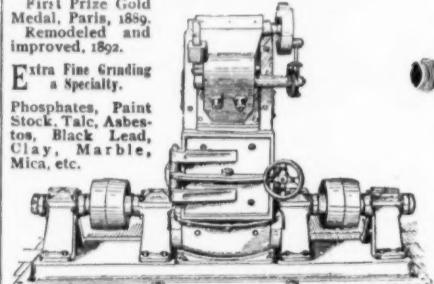
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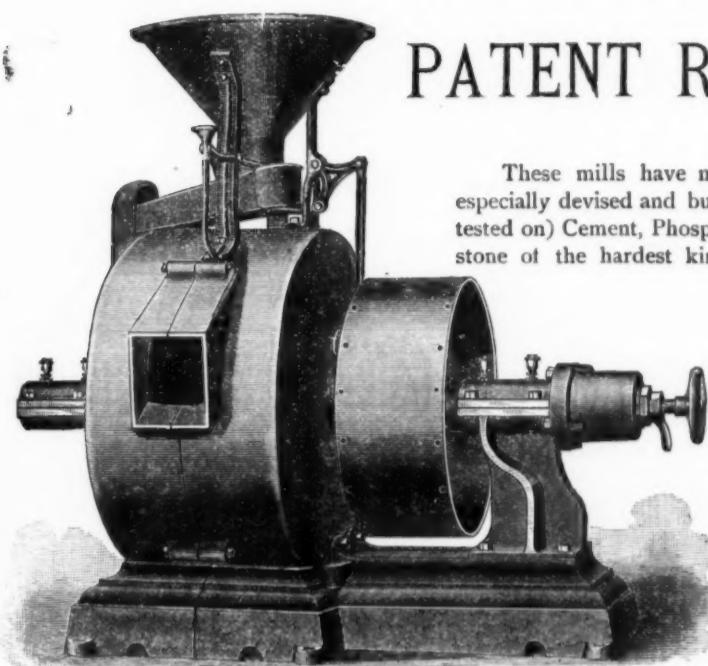
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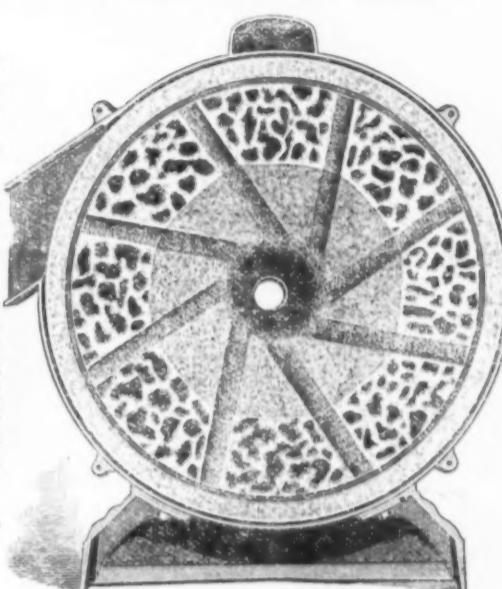


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THOROUGHLY TESTED and proved to be the most successful machine ever made for PULVERIZING all refractory substances, such as QUARTZ ORES of all kinds, PHOSPHATE ROCK, CARBON, FOUNDRY FACINGS, PLUMBAGO, PORTLAND AND ROCK CEMENTS, Etc.

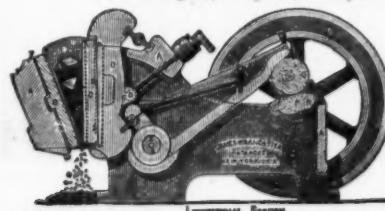
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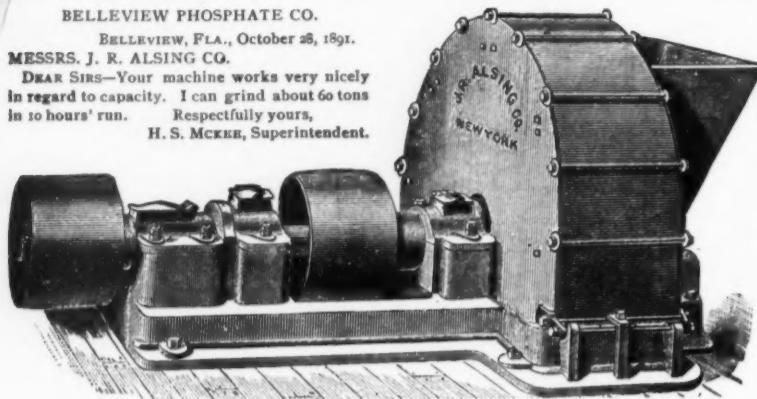
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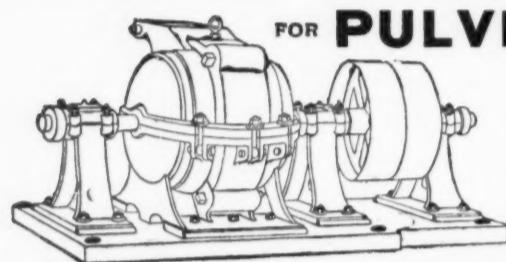
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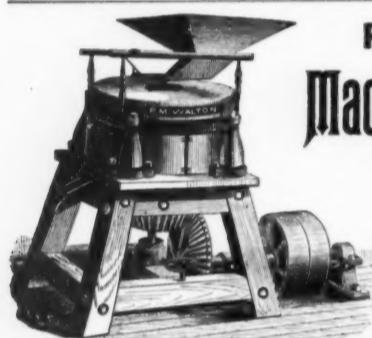
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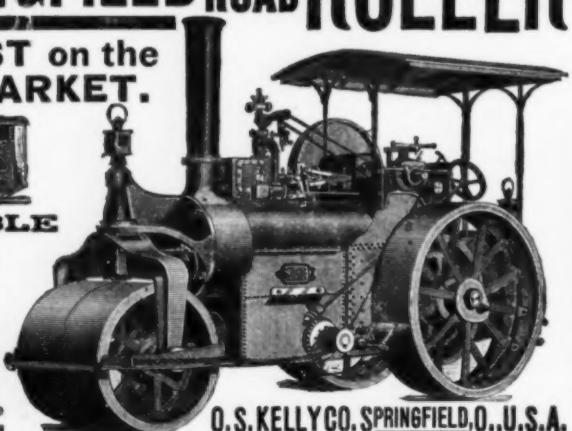


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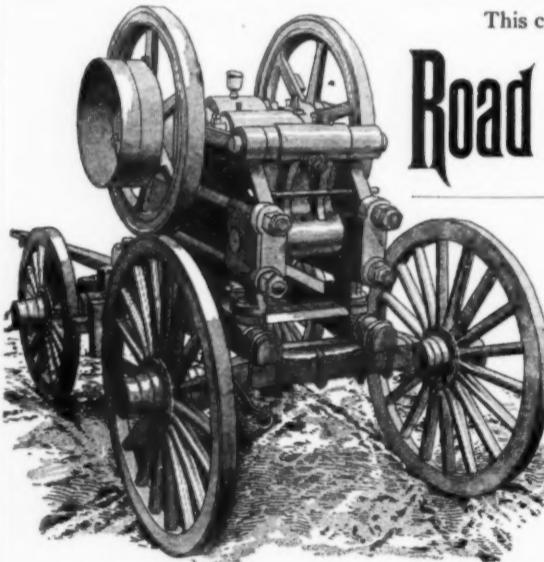
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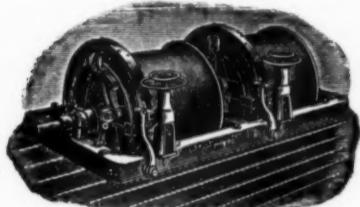
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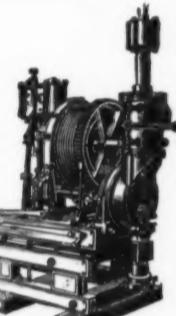
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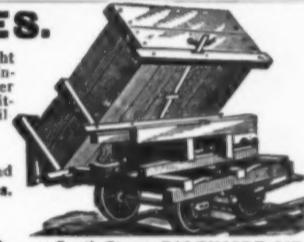
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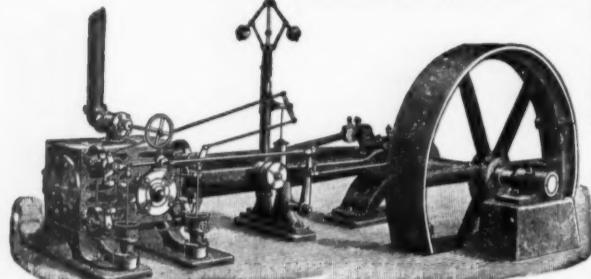
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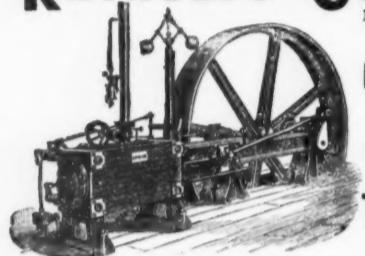
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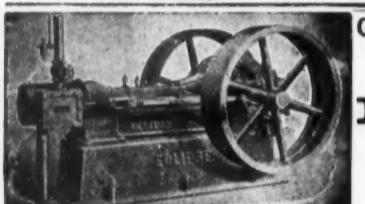
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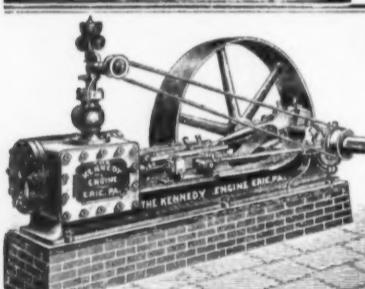
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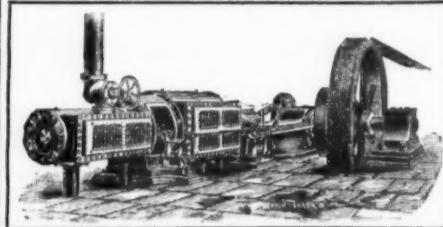


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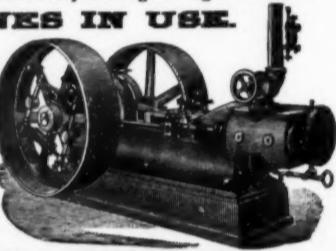
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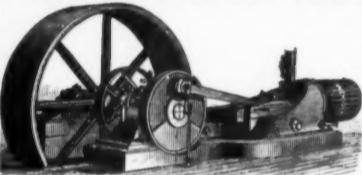
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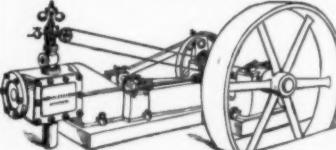


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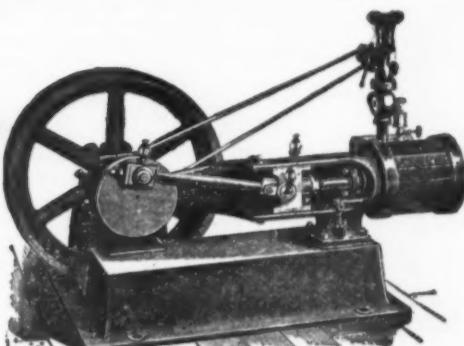
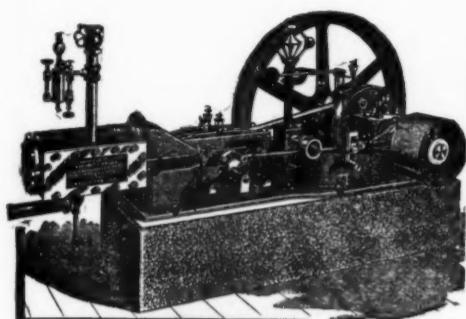
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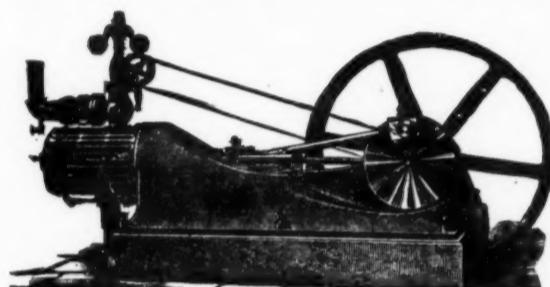
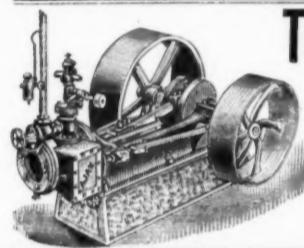
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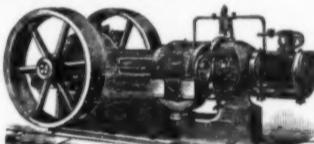
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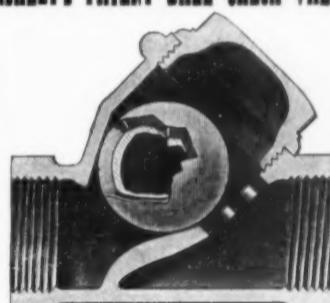
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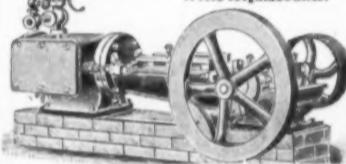
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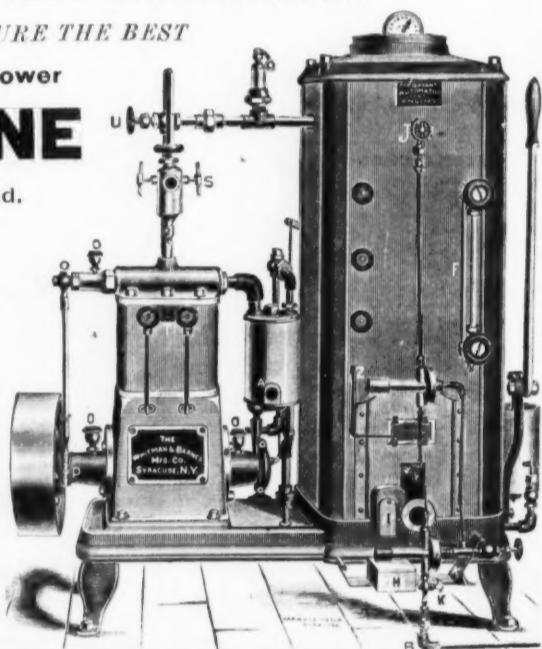
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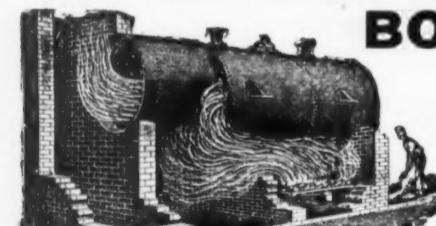
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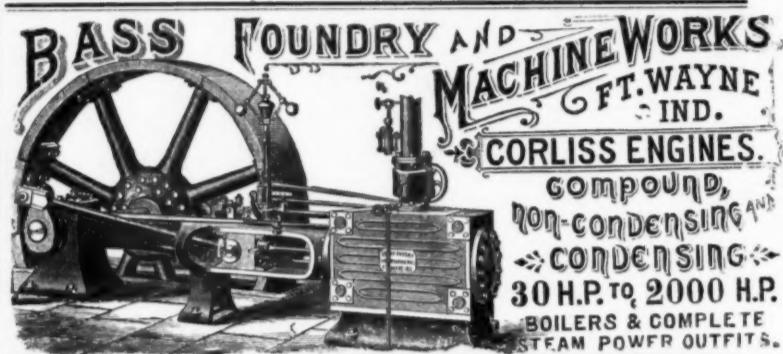
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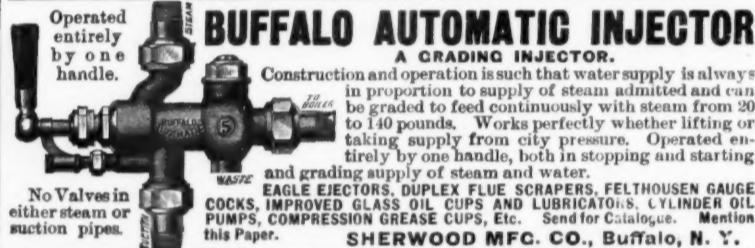
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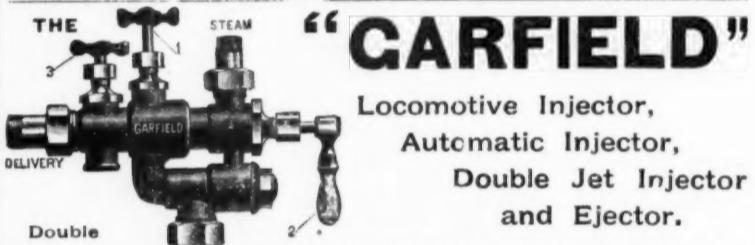


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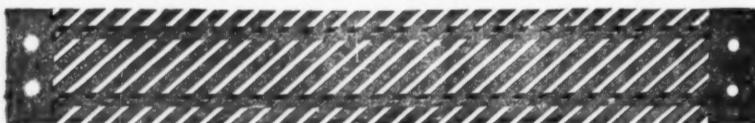
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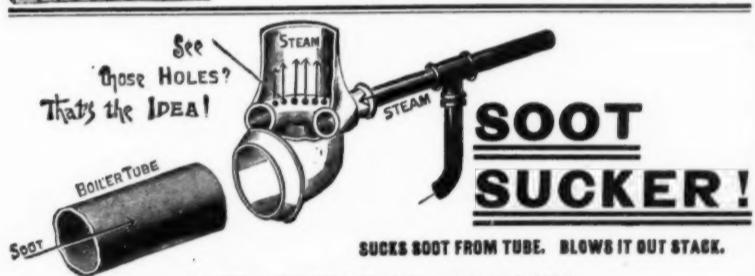
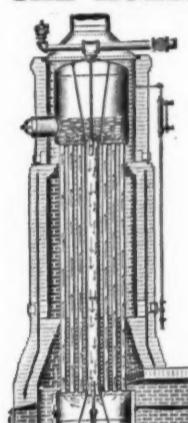
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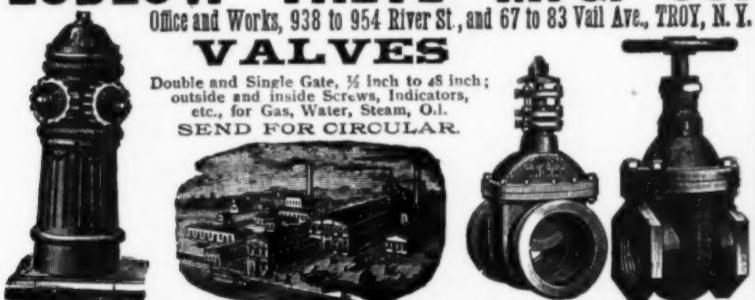
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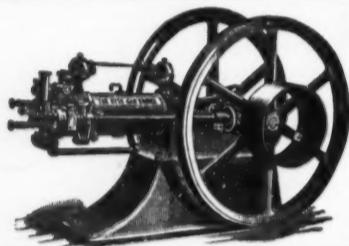
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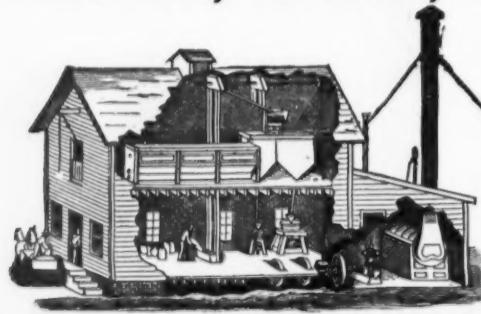
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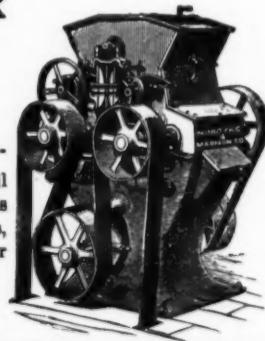


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MANUFACTURERS' RECORD.

[Name Patented 1889.]

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

VOL. XXII. NO. 22. WEEKLY.

BALTIMORE, DECEMBER 30, 1892.

\$1.00 A YEAR.
SINGLE COPIES, 10 CENTS.

NEW SOUTHERN INDUSTRIES IN 1892.

The Record of Enterprises That Have Been Organized In the Last Three Months.

The past three months have shown a marked revival of activity in all lines of industrial enterprise in the Southern States. Our record of new industrial enterprises which have been organized or established during the last quarter of 1892 shows a total of 621 new establishments, as compared with 564 during the third quarter of the past year. Our record for the entire year shows a total of 2688 new industrial establishments in the Southern States, as compared with 3241 during the year 1891.

The tabular statement presented below gives the number and character of the industrial enterprises that have been established in the South during the last three months, and also during the entire year 1892:

	Fourth Quarter.	Year.
		1892.
Iron furnaces	2	
Machine shops and foundries	24	82
Stove foundries	1	4
Miscellaneous iron and steel works	12	48
Woodworking establishments	171	630
Furniture factories	20	
Carriage and wagon works	4	14
Agricultural implement works	1	7
Mining and quarrying concerns	46	261
Flour mills	34	117
Textile mills	20	75
Cotton compresses	5	20
Cottonseed-oil mills	6	43
Brick works	10	81
Canning factories	9	57
Ice factories	16	68
Electric-light and power plants	31	124
Gas works	1	5
Water works	22	161
Miscellaneous enterprises not in above	208	929
Total	621	2,688

While the figures for the past three months show a marked increase over the record for the third quarter of this year, there is still a considerable falling off from the figures of the first and second quarters of 1892. This does not indicate, however, a depressed condition in the South, nor can it be taken as evidence of any retrograde movement in Southern industrial interests. On the contrary, there is unusual activity in every line of industrial enterprise in the South at the present time, and every indication points to a degree of activity during the coming year greater than has ever been known before. While the past three months do not show in actual figures as great a degree of activity in the establishment of new enterprises as was shown during the first quarter of the year, yet there has been, nevertheless, a great deal of planning for important new enterprises, the consummation of which will constitute the work of the coming year. The settlement of vexatious political issues, the greater amount of cash which the present cotton crop is yielding to the producers, the greater abundance of money and more extended credit in the South and the activity and prosperity which mark every branch of industry in that section are the conditions upon which the course of affairs in the South during the year 1893 will depend. With conditions as favorable as these are generally recognized to be there can be no doubt of the very promising prospects which lie before the South at this time. Every condition needful for successful business in the South exists at present, and the year 1892 closes with a very satisfactory record of progress that has been made under trying circumstances and with brilliant prospects for the coming year.

ALABAMA.

LOCATION.	NAME.	BUSINESS.
Anniston	Mr. Gay	Wood Works.
Anniston	Stringfellow-Whetstone	Planing Mill.
Anniston	Co.	Novelty Works.
Anniston	Anniston Novelty Works.	Novelty Works.
Anniston	Lloyd & Tate	Tannery.
Anniston	Jos. Embrey	Tannery.
Anniston	C. S. Car Co.	Rolling Mill.
Anniston	J. A. Davis et al.	Broom Factory.
Anniston	Hawley & Montgomery	Tannery.
Attalla	Calladaga	Sentinel Publishing Co.
Bayou LaBatre	C. C. Kaufman	Rice & Saw Mill.
Briggs	H. F. De Bardeleben	Saw Mill.
Bessemer	Bessemer Brass Co.	Brass Works.

LOCATION.

NAME.

BUSINESS.

Bibbville	Bibbville Fire Brick Co.	Improved Plant.
Bibbville	Dean & King	Saw Mill.
Birmingham	Jefferson Steel Co.	Steel Plant.
Birmingham	Black Warrior Coal, Iron, Steel & Navigation Co.	Mine Iron, etc.
Birmingham	Birmingham News Pub Co	Publishers.
Birmingham	W. P. Brewer	Sash & Blind Factory.
Birmingham	Bradfield & Co.	Cotton Compress.
Birmingham	Alabama Directory Co.	Publishing.
Bridgeport	Jno. Hurst et al.	Steam Laundry.
Columbia	Columbia Cotton Co.	Cotton Mill.
Deer Park	Babcock Milling Co.	Saw Mill.
Douglasville	Alex. Ashton	Saw Mill.
Epes Station	J. J. Hillman	Saw Mill.
Eufaula	T. W. Burns & Co.	Sausage Factory.
Fairford	Seaboard Mfg. Co.	Adl. Shingle Mill.
Florence	T. J. Dare of Anniston	Laundry & Dye Works.
Florence	F. Cotton & Iron Co.	Electric-light Plant.
Florence	Hudson & Bolinger	Lumber Plant.
Fort Payne	Alabama Steel Works	Rolling Mill.
Greenville	Martin & Porter	Ice Factory.
Guntersville	D. R. Sanders	Basket Factory.
Gurley	C. B. Holmes	Woodturning Plant.
Huntsville	Ed. T. Balles	Steam Laundry.
Huntsville	Lowmen Mfg. Co.	Fdy. & Machine Shop.
Huntsville	Ed. T. Balles	Dye Works.
Hurricane	Hall Bros. & Jernigan	Saw Mill.
Jacksonville	Jno. H. Forney	Variety Works.
Lacon	Standard Brick & Tile Works	Enlarged.
Mobile	Southern Lumber Co.	Saw Mill.
Mobile	Cochran Lumber Co.	Lumber Mill.
Mobile	Yellow Pine Lumber Co.	Planing Mill.
Mobile	Donald Lumber & Mig. Co.	Planing Mill.
Montgomery	Allen Creek Coal Co.	Mining.
Montgomery	Afro-Alabama Coal, M. Co.	
Montgomery	Mutual Light & Power Co.	Elec.-lt. & Power Plant.
Nicholia	Nicholia Lumber Co.	Saw Mill.
Opelika	Opelika Knitting Mills	New Machinery.
Piedmont	Piedmont Electric	Water Works, etc.
	Water Supply Co.	
Sand Mountain	B. C. Barton	Saw Mill.
Sheffield	Memphis & Charlest'n R.R. Car Shops	
Vineland	Thompson & Bailey	Saw Mill.

ARKANSAS.

Batesville	J. J. Huckabee et al.	Coal Mines.
Black Rock	Black River Lumber Co.	Shingle Mill.
Bolinger	Martin Lumber Co.	Lumber Mills.
Brinkley	J. Co. of Memphis, Tenn.	Stave Mill.
Clarendon	White River Stave Co.	Shingle Mill.
Clarendon	H. S. Ellis	Saw Mill.
Cotton Plant	A. F. Marbury	Saw Mill & Woodwkg Fy.
Des Arc	J. W. Petty	Flour Mill.
Eagle Mills	Eagle Lumber Co.	Electric-light Plant.
Fort Smith	Abbott & Co.	Cornmeal Mill.
Fort Smith	Roller Mill & Gin Co.	FLOUR Mill & Gin.
Harrison	Boone Banner Printing Co.	Printing Works.
Helena	McCoy & Co.	Saw Mill.
Jonesboro	Jonesboro Power Co.	El. Plt., Ice Fac. & W. Wks.
Jonesboro	J. & Cooperage Co.	Lumber Plant.
Lead Hill	H. W. Redler	FLOUR Mill.
Little Rock	Haliburton Drug Co.	Dealers.
Little Rock	Forrest City Hardwood	Woodworking Plant.
Little Rock	Reinman Stock Co.	
Little Rock	Eubank Car Door Co.	Mfr. Car Doors.
Little Rock	M. M. Drill Co.	Mining, etc.
Little Rock	Little Rock Bridge Co.	
Little Rock	Consumers' Lt. & Pow. Co.	Electric-light Plant.
Little Rock	C. E. Hayden	Saw & Planing Mill.
Little Rock	Crescent Oil Co. of Memphis, Tenn.	Cottonseed-oil Mill.
Little Rock	W. E. Lenon	Additional Saw Mill.
Little Rock	Charles Schutte	Saw Mill.
Little Rock	Charles Schutte	Box Factory.
Mammoth Spgs	Mammoth Spgs. Cot. Mills	Additional Machinery.
Madison	White River Stave Co.	Stave Mill.
Maysville	Meyer Milling Co.	Flour Mill.
Nettleton	F. Keich	Barrel Factory.
Newport	Nwpt. Ice & Cold Stor. Co.	Ice & Cold Storage Plant.
Newport	Rennel & Empie	Heading Factory.
Newport	A. Stevley	Veneer Factory.
Paragould	Bard Shingle & Stave Co.	Mfr. Shingles, etc.
Peach Orchard	Finnegan & Hallock	Saw Mill.
Piggott	Wright & Lentz, of Illinois	Flour Mill.
Piggott	D. Good & Co.	Planing Mill.
Pine Bluff	St. Louis & So'wth'n R.R. Car Shops.	Flour Mill.
Pine Bluff	Issac Moore	Broom Factory.
Prescott	Arkansas Lumber Co.	Saw & Planing Mills.
Quitman	Wiemaker Broom Co.	Flour Mill.
Reyno.	Wiemaker Broom Co.	Broom Factory.
Sherill	Phenix Lumber Co.	Planing Mill.
Sherill	J. M. Housley & Son, of Hot Springs	Silver Mining.
Silver City	Hot Springs	
Sulphur Spgs.	Meyer Milling Co.	Flour Mill.
Texarkana	Southern Pine Lumber Co.	Lumber Mills.
Vandale	D. C. Cole	Saw Mill.
Warren	Sherry & Butler	Lumber Mill.

FLORIDA.

Anthony	J. Dennard	Saw Mill.
Apalachicola	Cypress Lumber Co.	Planing Mill.
Apalachicola	Hagerman & Dunwoody	Saw Mill.
Aransas	Lewis Parker	Irrigating Plant.
Aransas	Aransas Novelty Works	
Archer	Portland Chem. & Phon. Co.	Phosphate Plant.
Bogdad	Simpson Co.'s Island Mill	New Machinery.
Barbersville	W. A. Hutton	Saw Mill.
Bartow	E. R. Foote	Nursery.
Bartow	Wilmington Del. et al.	Phosphate Plant.
Bartow	E. H. Gano, of Key West	Cigar Factory.
Bartow	Lake Hancock Pebble	Saw Mill.
Bartow	Phosphate Co.	
Bartow	R. R. Foote, of Auburn	Phosphate Mines & Plant.
Bartow	dale, et al.	
Bartow	Cates & Mayfield	Foundry & Mach. Shop.
Callahan	Fleming & Matthews	Brick Yard.
Callahan	Higginbotham & Son	Grist & Rice Mill.
Carabelle	Mr. Kelly et al.	Saw Mill.
Citra	Consolidated Orange Co.	Packing House.
De Land	Thayer Bros., of Chicago	Packing House.
Evinston	W. H. Smith	Moss Mill.

LOCATION.

NAME.

BUSINESS.

Fort Meade	Virginia-Florida Phon. Co.	Washing Plant.
Fort Meade	Lee County Commercial	Saw, Planing & Shingle Mill.
Fort Myers	Indian Mission	Rebuild.
Inverness	Peil Bros.	Novelty Works.
Hague	E. J. Pearce	Saw, Planing & Shin. Mill.
Jacksonville	Win. Sketter	Saw Mill.
Jacksonville	J. L. Buck Lumber Co. of Ellaville	Planing Mill.
Jacksonville	Jones & Johnson	Shingle Mill.
Jolly Bay	Mr. Strickland	Lumber Mill.
Joy West	Ellinger & Co.	Additional Cigar Fact'y.
Key West	City	Water Works.
Key West	E. Valens, of Chicago	Cigar Factory.
Kissimmee	Osecole Sugar Co.	Sugar Mills, etc.
Leesburg	Consolidated Orange Co.	Packing House.
Ocala	Mr. Johanson	Saw Mill.
Oviedo	Consolidated Orange Co.	Packing House.
Orange City	P. F. Carcason & Co. of Cincinnati	Water Works.
Orlando	Consolidated Orange Co.	Packing House.
Orlando	T. H. Barlow	Water Works.
Orlando	Orlando Water Co.	Canning & Jelly Fact'ry.
Orlando	Geo. E. Macy	Corn Mill.
Palatka	C. J. Rowton	Cider & Vinegar Mill.
Pensacola	M. A. Martinez	Cigar Factory.
Pensacola	Goulding Fertilizer Co.	Fertilizer Works.
Pensacola	Pena & Perdido R. R. Co.	Machine Shops.
Plant City	Consolidated Orange Co.	Packing House.
Port Tampa	W. B. Miradda	Canning & Jelly Fact'ry.
Port Tampa	St. Augustin	Machine Shops.
St. Augustine	Philip Prieoteau	Saw Mill.
S. Jacksonville	J. H. Hughes	Cigar Factory.
St. Augustine	P. F. Carcason & Co. of Cincinnati	Brick Works.
Tallahassee	W. O. Amer	Cigar Factory.
Tampa	Philip Collins	Novelty Works.
Tampa	J. Street R. C. Co.	Consumers' Elec. Light & Power Plt.
Tampa	J. W. Hebb, of Auburndale	Planing Mill.
Titusville	Consolidated Orange Co.	Packing House.
Reddick	Geo. B. Nichols	Irrigating Plant.
Winter Park	Mr. Dailey	Saw & Planing Mill.
	Reed McLane	Shingle Mill.

GEORGIA.

Americus	Americus Buggy Co.	Vehicle Works.
Athens	Alpha Mill Co.	Cotton Mill.
Atlanta	South River Brick Co.	Mfr. Brick.
Atlanta	Corona Coal Co.	Marble Quarries.
Atlanta	H. L. Collier et al.	Creamer's, etc.
Atlanta	Atlanta Dairy Co.	Bleeler Works.
Augusta	Geo. R. Lombard & Co.	Ice Fact'ry.
Augusta	Co-operative Coal Co.	Boiling Works.
Augusta	A. F. Lucas & J. G. Brinson	Battling Works.
Augusta	Sibley Mfg. Co.	Cotton Mill.
Bethel Hill	Ga. Pyrites Mining Co.	New Machinery.
Barnesville	City	Water Works.
Brunswick	Enterprise Cigar Factory	Mfr. Cigars.
Brunswick	S. C. Littlefield	Moss Factory.
Brunswick	Union W'rehouse & Com'.	
Brunswick	mission Co.	
Buchanan	Stewart & Hambrick	Saw Mill.
Carrollton	Rites Water Supply Co	

MANUFACTURERS' RECORD.

[Dec. 30, 1892.]

LOCATION.	NAME.	BUSINESS.
Covington	Genl. Land & Impv. Co.	Mercantile.
Covington	Genl. Mdse. & Trading Co.	
Covington	Agate Copper & Min. Co.	Mining Copper, etc.
Covington	J. Huntington & St. Louis	
Covington	Towboat Co.	
Covington	Linden Place Oil Co.	Gas & Oil Wells.
Covington	Walker Copper & Min. Co.	Mining Copper, etc.
Covington	General Express Co.	
Covington	Suburban Supply Co.	Water Works.
Covington	Empire Coal Co.	
Covington	Standard Wagon Co.	Wagon Works.
Carrollton	A. R. Marlett	Carpet Factory.
Columbia	Columbia Mill Co.	Saw, Plan. & Flour Mill.
Commercial	Pt J. H. Paul	Saw Mill.
Corinth	Ino. W. Perkins	Broom Factory.
Dayton	Maddux-Hobart Co.	Distillery.
Fordville	Hardwood Stuc.	Mfr. Staves.
Frankfort	Frankfort Mfg. Co.	Woodworking Factory.
Harrington	Van Arsdall Bros.	Planing Mill.
Henderson	Worsham Distilling Co.	Distillery.
Henderson	J. Ashby-Marshall Wharf	
Hopkinsville	Jas. C. Simmons	Broom Factory.
Irving	Irvine Lumber Co.	Lumber Mill.
Kenton	Kenton Water Co.	Water Works.
La Grange	N. C. Goldsborough	Canning Factory.
Lexington	Lexington Foundry Co.	Enlarge Plant.
Louisville	Acorn Shoe Dressing Co.	Mfr. Shoe Dressing.
Louisville	Nadorff Brewing Co.	Brewery.
Louisville	Ky. Carolina Timber Co.	Mfr. & Sell Lumber, etc.
Louisville	Sumpter Auto. Lub. Co.	Mfr. Lubricators.
Louisville	Golden Seal Remedy Co.	Mfr. Medicine.
Louisville	Rosenfeld Bros. & Co.	Distillery.
Louisville	of Chicago	
Louisville	Chandler-Shafer Co.	Stone Quarries.
Louisville	Kentucky Mercantile Co.	
Louisville	Franklin Printing Co.	Printing Works.
Louisville	Conway Bros. Co.	Brick Works.
Louisville	Louisville Cotton Mills Co.	Cotton Mill.
Louisville	Kentucky Union Ry. Co.	R. R. Shops.
Louisville	J. Shafer-Nichols-Watkins	Constructing Engineers.
Louisville	Western Drug Co. & H. J.	
Louisville	Louisville Tobacco Wks.	Mfr. Tobacco.
Louisville	Kentucky Cannel Co.	Coal Mines.
Louisville	Columbia Stock Food Co.	Mfr. Animal Powders.
Louisville	Givens-Rice-Headley Co.	Tobacco Company.
Middleborough	S. L. Morris	Tobacco Factory.
Middleborough	Fishers Agency Co.	
Middleborough	Middleborough Water Co.	Water Works.
Middleborough	H. T. Noel, of Lancaster	Box Factory.
Middleborough	Middleborough Construc. Co.	
Newport	Queen Liquid & Filter	Mfr. Machines.
Newport	U. S. Lock Co.	Lock Works.
Newport	Amer. Carousel & Toy Co.	Mfr. Toys.
Newport	Newport Stone Co.	Stone Quarries.
Newport	Suburban Supplying Co.	Water, Gas, etc.
Newport	Illin. Street Car Sign Co.	Mfr. Signs.
Newport	Stewart Chemical Co.	Mfr. Chemicals, etc.
Newport	Rohson Mining Co.	
Nicholasville	Nicholasville Water Co.	Water Works.
Normal	John G. Patten & Co.	Flour Mill.
Owensboro	Owensboro Elevator Co.	Grain Elevator.
Paducah	Clements Bros.	Planing Mill & Sash & Door Factory.
Paducah	A. B. Lowell	Saw Mill.
Fineville	F. H. Beaman	Stone Quarry.
Winchester	Conn. & Hagan	Lumber Mill.
Winchester	Winchester Novelty Wks.	Novelty Works.
Winchester	Winchester Cotton & To- acco Press Co.	Mfr. Presses.

LOUISIANA.

Alexandria	Levins Saw Mill.	Rebuild.
Alexandria	Rapides Lumber Co.	Saw & Planing Mill.
Baton Rouge	Feuqua Hardware Co.	Dealers.
Baton Rouge	Capital Ry. & Lng. Co.	Imp. Electric Plant.
Ethel	La. Brick & Clay Wks Co.	Brick Works.
Gretna	Union Oil Co.	Oil Refinery.
Hammond	Leroy Thomas	Ice Factory.
Hammond	E. M. Irish	Bldg. Material Factory.
Houma	Caillouet & Maginnis	Sugar Mill.
Lake Charles	Patrick Crowley	Steam Laundry.
Lake Charles	J. C. Rice Milling Co.	Rice Mill.
Lecompte	Lecompte Lum & Shing Co.	Lumber & Shingle Mill.
Lecompte	Lecompte Lum & Shing Co.	Mattress Factory.
Lehman	Karl Lehmann	Carriage Works.
New Iberia	Patin Bros.	Lumber Mill.
New Orleans	W. J. Athens Lumber Co.	Carriage Factory.
New Orleans	Aarons-Mendelson Co.	Tobacco Factory.
New Orleans	David Mfg. Co., Ltd.	Ref. Cottonseed Oil, etc.
New Orleans	Crescent Soap Works	Mfr. Soap.
New Orleans	Louisiana Alcohol Co.	Mfr. Spirits.
New Orleans	J. Rosenberg & Co., Ltd.	
New Orleans	James Buckley & Co., Ltd.	
New Orleans	Stafford Mineral Spgs. Co.	
New Orleans	New Orleans Butchers	
New Orleans	J. Hide & Tallow Co.	
New Orleans	La Labor Min & Smelt.	C. Mining, etc.
New Orleans	Nat. Auto. Fire-Alarm Co.	
New Orleans	Baker Saw Mill Co.	Saw Mill.
New Orleans	New Orleans Excursion	
New Orleans	J. Transportation Co.	
New Orleans	F. P. Gravely Mch. Co., Ltd. Dealers.	
New Orleans	C. Lee McMillan Co.	Merchandise Company.
New Orleans	Coroay Transfer Co.	
New Orleans	Willis Bros.	Blacksmith Shop.
Monroe	E. G. Swartz Co., Ltd.	Mfr. Lumber.
New Orleans	Wm. Ge.	Hosptry Mill.
New Orleans	American White Lead & Color Works	Rebuilt.
New Orleans	La. Boot & Shoe Co.	Dealers.
New Orleans	E. V. Reiss & Bro.	Bagging Factory.
New Orleans	Southern Commission Co.	Manufacturing, etc.
New Orleans	Auto. Machine Co., Ltd.	
New Orleans	John J. Moll et al.	Ginnery.
New Orleans	P. Thiel	Brass Fur. & Mach. Shop.
New Orleans	W. T. Logan Crockery Co.	New Orleans Sewerage Co.
Plaquemine	Wilbert Bros.	Sewerage System.
Plaquemine	F. J. Kearny & Co.	Saw Mill.
Slide	Slide Brick & Tile Mfg. Co.	Brick and Tile Works.
Thibodeaux	C. S. Mathews	Sugar Mill.
White Castle	W. C. Lum. & Shingle Co.	Electric-light Plant.

MARYLAND.

Aberdeen	W. A. Bobb, of Odessa	Label Factory.
Aberdeen	Aberdeen Can Co.	Can Factory.
Baltimore	Florence Sterling's Silver Co.	Mfr. Plated Ware.
Baltimore	H. S. Hires Co.	Mfr. Shafting, etc.
Baltimore	Consumers' Ice Co.	
Baltimore	Southern Electric Co.	Increase Capital.
Baltimore	E. F. Kirwan Mfg. Co.	Can Factory.
Baltimore	Jas. D. Mason Co.	Cracker Factory.
Baltimore	Md. Electric Co.	Electric Plant.
Baltimore	Sunner & Gerlach	Gas & Gas Works.
Baltimore	Clendenin Bros.	Machine Works.
Baltimore	Thielen Combustion Gov.	Mfr. Machinery, etc.
Baltimore	Thielen Combustion Gov.	
Baltimore	E. A. Jones Paper Box Co.	Paper-box Factory.
Baltimore	The Vibrometer Co.	Mfr. Vibrometers.
Baltimore	Mason Produce Co.	
Baltimore	Md. Bleach & Dye Works.	New Machinery.
Baltimore	Baltimore Waste Co.	New Machinery.
Baltimore	Leeds Land Co.	
Baltimore	Baker Fruit Co.	
Baltimore	Lyman, Fuller & Post Co.	Construc'g Railways, etc.
Baltimore	Wm. G. Michael	Saw Mill.
Baltimore	Price Lime Co.	Lime Works.
Baltimore	City & Suburban Ry. Co.	Electric Power Plant.
Baltimore	Evans Marble Co.	Deal in & Dress Marble.
Baltimore	Locust Pt. Iron & Steel Wks.	Template Plant, etc.
Baltimore	Enterprise Sew Co.	

LOCATION.	NAME.	BUSINESS.
Baltimore	W. H. King & Co.	Saw Mill.
Baltimore	McCormick & Co. (inco.)	Mfr. Extracts, etc.
Baltimore	Whiteford Chemical Co.	Mfr. Chemicals, etc.
Baltimore	Md. Surveying Co.	Engineering, etc.
Baltimore	E. Rice Daniel, of Wales	Template Mill.
Baltimore	Burrough Bros. Mfg. Co.	Chemical Works.
Baltimore	Intermont Tim. & Lum. Co.	
Baltimore	F. A. Lazebny & Co.	Mfr. Machinery.
Baltimore	Geo. H. Geiger Co.	Canning Factory.
Baltimore	Ino. Moore	Flour Mill.
Baltimore	Eden Park Land Co.	Woodenware Factory.
Chestertown	C. H. Stew'wn Cream & Ice Co.	Creamery & Ice Plant.
Chestertown	Mr. Baumgardner	Machine Shops.
Chestertown	Ma. Ba. Baumgardner	Water Works.
Chestertown	Gen. W. Morse	Saw Mill.
Chestertown	White Lumber Co.	Lumber Mill.
Chestertown	T. M. McElfish, of Flintstone	Marble Quarry.
Chestertown	E. T. Pilkinson & Co.	Tobacco Factory.
Ellicott City	Richmond	
Ellicott City	Openheimer Oberndorf & Co.	Shirt Factory.
Elkton	E. W. Dawson	Creamery.
Eyler	Geo. Smith	Broom Factory.
Frederick	Frederick City Lime Co.	Lime Works.
Frostburg	Jas. H. Gambrill	Flour Mill.
Frostburg	Frostburg Gas Light Co.	Improve Plant.
Gaithersburg	Gapland Turnpike Co.	
Gaithersburg	Surbridge Mfg. Co.	Electric-light Plant.
Gaithersburg	D. A. Stickell	Cornmeal Mill.
Gaithersburg	Brick Works.	
Gaithersburg	Childs & Sons	Brick Works.
Gaithersburg	Elec. Lt. Pow. & Heat Co.	Electric Plant.
Gaithersburg	F. H. Correll & Co.	Electric Plant.
Gaithersburg	J. Boston	Vinegar Factory.
Gaithersburg	C. R. Wilson	Dye Works.
Gaithersburg	N. W. Steel	Basket Factory.
Gaithersburg	E. T. B. Day	Int. Factory.
Gaithersburg	Hoover Ink Co.	Woolen Mill.
Gaithersburg	N. W. Steel	
Gaithersburg	Bowman's Bazaar Electric	Electric-light Plant.
Gaithersburg	J. Light & Power Co.	New Boiler Shop.
Gaithersburg	Maryland Steel Co.	
Gaithersburg	Towson Lum. & Coal Co.	
Gaithersburg	Nelson Koontz	Saw Mill.
Gaithersburg	G. W. Larch	Cleaning & Dye'g Estab.
Gaithersburg	G. W. Larch	Garbage Crematory.
Gaithersburg	G. W. Larch	
Gaithersburg	Wash. g. n. D. C. National Sanitary Co.	Garbage Crematory.
Gaithersburg	Wash. g. n. D. C. Pittsburgh Lead & Zinc Co.	
Gaithersburg	Wash. g. n. D. C. Metropolitan St. Ry. Co.	Electric-power Plant.

MISSISSIPPI.

Bogue Chitto	B. E. Brister & Bro.	Saw Mill.
Buckatunna	Robinson Land & Lum. Co.	Lumber Mills.
Callao	Callao Mercantile Co.	
Carrollton	M. J. McElhine	Woolen Mills.
Enterprise	John Kamper, president	Knitting Mill.
Fria Point	American Cooperage Co.	Mfr. Barrels.
Gainesville	John Peterman	Bor. Factory.
Goster	Gloster Can & Preserv. Co.	Canning Factory.
Greenville	Delta Cotton Co.	Operate Cotton Fac., etc.
Greenwood	Greenwood Cotton Co.	Cotton Factory, etc.
Hopkinsville	H. S. Compress Co.	Cotton Compress.
Jackson	Missionary Ridge Farm Co.	
Lexington	Lex. Gin & Warehouse Co.	
Lula	J. W. Stipe	Boiler & Eng. Shop, etc.
Meridian	Queen City Wheel Co.	Wheel Factory.
Rolling Fork	Cartwright & Rogers	Knitting Mill.
Strawhorn	G. W. Hadden	Saw Mill.
Vicksburg	Armour Packing Co.	Cold-storage Plant, etc.
Vicksburg	Spangler Mfg. Co.	Lumber Mills.
Vicksburg	Vick. Elec. Translt. & Co.	
Vicksburg	Warren Mfg. Co.	Manufacturing.
Water Valley	W. V. Wal. Canning & Mfg. Co.	Canning Factory.
Waynesboro	Samuel West	Saw Mill.

NORTH CAROLINA.

Aberdeen	Aberdeen Lumber Co.	Lumber Mill.
Bessemer City	Bessemer Mining Co.	Iron Mines, etc.
Burlington	Windsor Cotton Mill.	New Machinery.
Burlington	Mr. Ireland	Flour Mill.
Catawba	Molesworth & Keating	Gold Mine.
Catawba	Ino. P. Moore	Corn Mill.
Charlotte	M. J. Ritchie	Jug Factory.
Charlotte	Queen City Drug Co.	
Charlotte	Charlotte Mch. Co.	Engineering, etc.
Charlotte	E. M. Andrews	Mfr. Mattresses.
Charlotte	Charlotte Brick & Tile Co.	New Machinery.
Cedar Falls	Cedar Falls Mfg. Co.	Cotton Mill.
Cleveland	P. M. Brown of Beat Poplar	Four Mill.
Cleveland	Cleveland Cotton Mills	Additional Machinery.
Davidson Col.	Cornelius Cotton Mills	Cotton Mill.
Durham	Mangum & Sear	Steam Laundry.
Durham	Durham Cotton Mfg. Co.	Improve Plant.
Durham	i. Mtg. Co.	
Durham	Durham Supply Co.	
Eagle Mills	Morrison, Gaither & Co.	Cotton Mill.
Elizabeth City	W. D. Lathrop & Co.	Shingle Mill.
Elkin	Elkin Mfg. Co.	New Woolen Mill.
Elm College	Altamahala Mills	Cotton Mill.
Falkton	J. B. Stroup	Flour Mill.
Fayetteville	Ferris & Richards, of N. J.	Water Works.
Fayetteville	R. M. Minock, president	Woodworking Factory.
Fayetteville	Russell Bros.	Machine Shop.
Franklinville	Randolph Mfg. Co.	Flag Factory.
Franklinville	Franklinville Mfg. Co.	Cotton Mill.
Gibsonville	Minneola Mfg. Co.	Cotton Mill.
Greensboro	Oak Hill Hosiery Mills	New Machinery.
Greensboro	J. F. Yates & Co.	Novelty Works.
Greensboro	Goldsboro Cotton Mill.	New Machinery.
Henderson	Henderson Lt. & Pow. Co.	Electric Plant.
Henderson	Silas Powell	Flour Mill.
Hope Mills	Hope Mills Mfg. Co.	Cotton Mill.

LOCATION.	NAME.	BUSINESS.
Caldwell.	Caldwell Water Works,	Works.
	Elec. Light & Ice Co.,	
Calvert.	Calvert Compress Co.,	*Cotton Compress.
Comanche.	Beatty & Carlisle.	Ice Factory.
Corrigan.	Allen & Williams.	Ice Factory.
Dallas.	Murray Gin'g System Co.	Mfr. Cotton Gins.
Dallas.	Bolivar Navigation Co.,	Construct Channel, etc.
Dallas.	Dallas Book Publishing Co.,	Publishers.
Dallas.	Dallas Tin Stamping Co.,	*Tin-stamping Works.
Dallas.	Dallas Packing Co.,	Packing House.
Denison.	Denison Light & Pow. Co.	New Gas Plant.
Denison.	McDonald & Penfield.	Stone Quarry.
Denison.	Denison Lt. & Power Co.	*Electric-light Plant.
Denton.	Denton Ice, Lt. & Water Co.	*Electric-light Plant.
Detroit.	Detroit Broom Mfg. Co.	Broom Factory.
El Paso.	E. P. Public Ore Sampig. Co.	Sampling Works.
Fort Worth.	Mr. Giles, of Memphis, et al.	Cottonseed-oil Mill.
Fort Worth.	Southwestern Fuel Co.,	Mining Coal, etc.
Galveston.	Morris, Butts & Co., of Chicago.	{ Soap Factory.
Galveston.	Galveston Wharf Co.,	Creosote Plant.
Galveston.	South Orchid, & Vin-Dy Co.,	Cotton Compress.
Greenville.	Independent Compress Co.	Water Works.
Groesback.	Colorado Ferry Co.,	
Hearne.	Hearne Compress Co.,	*Cotton Compress.
Hearne.	Hearne Electric Light Co.	Electric-light Plant.
Hillsboro.	Hillsboro Ice Co.,	
Hillsboro.	Hillsboro Oil Co.,	*Cottonseed-oil Mill.
Houston.	Omaha (Neb.) Basket Co.,	Basket Factory.
Houston.	Houston Chemical Co.,	Mfr. Chemicals.
Houston.	Gill Mfg. Co.,	
Houston.	Renwick & Barbour, of Michigan.	Woodworking Factory.
Houston.	Houston Car Co.,	*Car Works.
Houston.	B. A. Reisner.	*Carriage Works.
Houston.	Woodlawn Heights Co.,	
Jefferson.	W. K. Henderson.	Saw and Planing Mill.
Laredo.	Geo. Taylor, of Ft. Worth.	Woolen Mill.
Laredo.	Minerva Colliery Co.,	
Longview.	The Elec. Lt. & Power Co.	Electric-light Plant.
Marysville.	T. R. Crow.	Corn Mill.
McKinney.	McK. Compress Co.,	
Marlin.	Marlin Ice & Elec. Lt. Co.	Elec.-lt. Plant & Ice Fac.
Marlin.	Silver Peak Mining Co.,	
Marshall.	Hope Lumber Co.,	New Mill.
New Braunfels.	Landa Elec.-lt. & Pow Co.	Electric-lt. & Power Plt.
N. Galveston.	N. Gal. Pressed Brick Co.,	Brick Works.
N. Galveston.	N. Gal. Compo-Board Co.,	Mfr. Plaster Substitute.
N. Galveston.	N. Galveston Hosiery & Wool-Scouring Co.,	Hosiery & Scour'g Mill.
Oak Cliff.	City.	Water Works.
Orange.	Smith & Gibson.	*Steam Laundry.
Paris.	Paris Ice Co.,	*Ice Factory.
Quanah.	Quanah Mill & Elevator Co.	Flour Mill, etc.
Runge.	Schorre Bros.	Grist Mill & Gin.
San Antonio.	Geddes Milling Co.,	Flour Mill.
San Antonio.	Alamo Iron Works.	Enlarge Plant.
San Antonio.	Pan-American Coffee Co.,	Manufacturing.
San Antonio.	Nelson A. Mackey et al.	Cottonseed-oil Mill.
San Antonio.	S. A. Cold Stor. & Mfg. Co.	Increase Capital.
San Saba.	Steam Milling Co.,	Flour Mill.
St. Jo.	St. Jo Asphaltum Co.,	Mine & Mfr. Asphaltum.
Sulphur Springs.	Schmid & Sefton.	El. Lt. Pt. & Water Wks.
Terrell.	Whitaker Bros.	Battling Factory.
Texarkana.	Tyler Chair & Fur. Wks.	Lumber Mills.
Tyler.	Tyler Chair & Fur. Wks.	*Rebuilt.
Victoria.	Victoria Publishing Co.,	Publishers.
Waco.	Waco Water & Elec. Co.,	Electric & Water Works.
Waco.	Ennis-Calvert Express Co.,	
Waco.	Fleming Lumber Co.,	Lumber Dealers.
Waco.	Waco Ice & Refrig. Co.,	Another Ice Plant.
Whitewright.	White. Cotton-Oil Mfg. Co.	Cottonseed-oil Mill.

VIRGINIA.

Alexandria.	Van Dorsten R'y Sup'y Co.	Mfg. Car Couplers.
Alexandria.	New Pedpara Onyx Co.,	Onyx Mine.
Alexandria.	White Magazine Rifle Co.	Manufacturing.
Alexandria.	Holly Mch. & Supply Co.	Machine Works, etc.
Alexandria.	Columbia Novelty Co.,	
Alexandria.	Greenville Aquarium & Park Co.,	
Alexandria.	Alexandria Land & Riv'r Improvement Co.,	Basket Factory.
Alexandria.	Pioneer Mills.	Lumber Mills.
Alexandria.	Roslyn Development Co.,	
Alexandria.	Newman Perfume Co.,	Mfr. Perfumes, etc.
Alexandria.	Rotary Printing & Dupli-cating Co.,	
Alexandria.	R. Doolittle Chemical Co.,	Mfr. Chemicals.
Alexandria.	Lewis Young.	Soda water Works.
Arvonia, near.	Jas. S. Hall & Co.,	Saw & Planing Mill.
Big Stone Gap.	Big Stone Gap Colliery Co.	Coal Mines.
Big Stone Gap.	Jno. R. Proctor Invest. Co.,	
Bridgewater.	G. W. & E. L. Berlin.	Flour Mill.
Buena Vista.	Columbian Paper Co.,	Paper Mill.
Charlottesville.	Locus Grove Invest. Co.,	
Charlottesville.	Hercules Ice Co.,	Ice Factory.
Charlottesville.	Armstrong Knitting Mills.	New Machinery.
Charlottesville.	Becker Machine Co.,	Machinery.
Clifton.	Virginia Marble & Iron Co.	Quarries & Mines.
Danville.	G. Penn, Sons & Co.,	*Tobacco Factory.
Danville.	Idol & Proctor Co.,	
Danville.	Brown & Carter.	Foundry & Mch. Wks.
Danville.	Snider Tobacco Caser Co.,	Mfr. Casers.
Daggers.	W. R. Bean & Sons.	Grist & Saw Mill.
Dendron.	T. D. Parker Co.,	Mercantile Company.
Dendron.	Surry Lumber Co.,	New Lumber Mill.
Dorset.	Powhatan Clay Mfg. Co.,	Brick Works.
Elliston.	J. W. Barnett.	Cigar Factory.
Ettricks.	H. F. Munt.	Corn Mill.
Falls Church.	M. M. Wakefield.	Saw Mill.
Fincastle.	Slicer & Slusser.	Spoke Factory.
Fincastle.	Thos. Slusser.	Slate Factory.
Floyd C. H.	Thos. Goodson.	Flour Mill.
Fredericksb'g.	H. Clay Thomas.	Tin-can Factory.
Gayton.	Eggette Fuel Co.,	Hyd. Plant.
Graham.	W. Graham Woodwkg. Co.	Mfr. Building Material.
Hampton.	Powhatan Brick & Tile Co.	Mfr. Brick, etc.
Harrisonburg.	C. H. Bush.	Mfr. Candy.
Huguenot.	James River Coal Co.,	Coal Mines.
Ivanhoe.	New River Mineral Co.,	Foundry & Mach. Shops.
Ivy Depot.	Ivy Alliance, Industrial & Land Improve. Co.,	
Lexington.	L. Elec. Lt. & Power Co.	Electric-light Plant.
Lynchburg.	Dunlop, Stokes & Co.,	Tobacco Factory.
Lynchburg.	Southern Drug & Mfg. Co.	Drug Mills.
Manchester.	Aetna Development Co.,	
Marksville.	W. F. Welfley.	Flour Mill.
Meadowville.	Edw. E. Barney.	Saw & Planing Mills.
Merrifield.	Wm. Wakefield.	Saw Mill.
Montvale.	J. Ridgemont Cement & Mfg. Co.,	Cement Works.
New Church.	J. W. Short.	Barrel Fac. & Saw Mill.
Newport News.	E. C. Hillyer & Co.	New Machine Shop.
Newport News.	Crystal Ice Co.,	Ice Factory.
Newport News.	Mechanics Land Co.,	
Newport News.	Home Land Co.,	
Newport News.	C. M. Braxton.	Planing Lumber.
Norfolk.	N. Y. Commercial Co.,	
Norfolk.	C. D. Cade & Son.	Saw & Planing Mill.
Norfolk.	E. White, president.	Nail & Puddling Mill.
Norton.	Big Stone Gap Colliery Co.	Coal Mines & Coke Ovs.
Petersburg.	Matoaca Mfg. Co.,	Cotton Mill.
Petersburg.	Pocahontas Cotton Mill.	New Machinery.
Pocahontas.	Simon Seward & Co.,	Trunk Factory.
Portsmouth.	Pocahontas Water Wks. Co.	Water Works.
Portsmouth.	Portsmouth Turning & Mfg. Co.,	Woodworking Factory.
Radford.	Mount & Jones.	Electric-light Plant.
Richmond.	Progressive Publishing Co.	Publishing.
Richmond.	Old Dominion Cot. Mills.	New Machinery.
Richmond.	Lewis Ginter.	*Rock Quarry.

LOCATION.	NAME.	BUSINESS.
Richmond.	Fulton Yeast Co.,	Manufacture Yeast.
Richmond.	Fulton Brick Co.,	Brick Works.
Richmond.	Jas. N. Boyd.	Tobacco Factory.
Richmond.	A. B. Eddins.	*Tobacco Factory.
Richmond.	Home Electric Co.,	Mfr. Electric Mch'y, etc.
Richmond.	American Seal Works.	Mfr. Seals, etc.
Richmond.	The Snow-Church Co.,	
Richmond.	Adam Diacon.	*Mattress Factory.
Richmond.	W. J. Whitehurst.	*Dry-kilns.
Roanoke.	Fishburne Bros. Co.,	Tobacco Mfrs., etc.
Roanoke.	Roanoke Elec. Light Co.,	*Electric-light Plant.
Roanoke.	The Va. Houston Nar-	
Roanoke.	D. V. Reed.	*Carriage Factory.
Roanoke.	W. A. Gray, of Reading, Pa.	Broom Factory.
Roanoke.	Geo. W. Ammen & Co.,	*Steam Laundry.
Roanoke.	Central Mfg. Co.,	Planing Mill.
Salem.	Salem Dairy Co.,	Creamery.
Salem.	Salem Tannery Co.,	*Tannery.
Salem.	Hill Mfg. Co.,	Electrical Works.
Shendun.	Old Dominion Mfg. Co.,	Dry-kiln.
Staunton.	Va. Internal Impv. Co.,	
Staunton.	Brew & Crittenden.	Steam Laundry.
Staunton.	City Street Car Co.,	Elec-light & Pow. Plant.
Stanley.	Messrs. Rondeshaw.	Flour Mill.
Star Tannery.	Mr. Corbett, of Wash'gton.	Coal Mine.
Stuarts Draft.	S. D. Milling Co.,	Flour Mill.
Suffolk.	Suffolk Knitting Mills.	New Machinery.
Suffolk.	Suffolk Spring Bed Co.,	Mattress Factory.
West Norfolk.	Standard Truck Barrel Co.	Barrel Factory.

WEST VIRGINIA.

Addison.	Henry Ringer.	Saw Mill.
Addison.	E. H. Eisenhart.	Saw Mill.
Bayard.	Bayard Coal & Coke Co.,	Coal Mines & Coke Ovs.
Belleville.	Belleville Oil Co.,	
Benwood.	Riverside Iron Works.	New Plate Mill.
Berkeley.	B. Springs Water Works	Water Works.
Bluefield.	Gooch & McCue.	Flour Mill.
Bluefield.	A. J. Lacey & Son.	Saw Mill.
Bramwell.	Flat Top United Coke Co.,	
Caldwell.	B. M. De Nemegyei et al.	Saw Mills.
Camden.	The Gauley Co.,	Lumber Mills, etc.
Cedar Grove.	C. Grove Coal, Coal Co.	Coal Mines.
Central City.	Independent Bung Co.,	Bung Factory.
Charleston.	Athletic Train'g Appar. Co.	Mfr. and deal in.
Charleston.	T. O. Meeker & Co.,	Hum. Pt. & New Plg. Mill.
Charleston.	Waldron Construction Co.	Mfr. Machinery, etc.
Charleston.	Charles Ice Mfg. & Cold Storage Co.,	Ice Factory, etc.
Charleston.	Hayes Phosphate Co.,	Mine Phosphate, etc.
Clarksville.	Lowndes & Charpening Co.,	
Clifton.	Sterling Coal & Mfg. Co.,	Coal Mines.
Coalburg.	Kanawha Coal & Coke Co.	Coal Mining.
Corinth.	Preston Lumb. & Coal Co.	Lum. Mfg. & Coal Min'g.
Davis.	Frank Thompson.	Saw Mill.
Elkins.	W. C. Russell.	Saw Mill.
Emory.	W. Va. Mfg. Co.,	Manufacturing.
Fairmont.	Barnsville Mfg. Co.,	Woolen Mill.
Fairmont.	M. C. & F. B. Dickerson.	Planing Mill.
Fairmont.	W. Va. Gold Mining & Milling Co.,	Mining, etc.
Harper's Ferry.	Cole's Flue Expander & Beader Co.,	
Huntington.	Logan Cannel Coal Co.,	Mine Coal.
Huntington.	The Barlow-Henderson Co.	Mercantile.
Iron Gate.	Richmond Stand. Spike & Iron Co.,	New Machinery.
Kanawha City.	K. C. & Charleston Ferry Co.,	
Kanawha City.	Buckeye Cart Co.,	*Cart Works.
Keyser.	Richardson Bros.	Furniture Factory.
McDowell.	Standard Mercantile Co.,	
Moundsville.	Ashand Coal & Coke Co.,	Coal Mines.
Martinton.	W. B. Humphreys.	Broom Factory.
Martinton.	Rochester Boom & L. Co.,	Lumber Mill, etc.
Martinsburg.	Martinsburg Elec. & P. Co.,	
Parkersburg.	Parkersburg Upholster'g Co.,	
Parkersburg.	Parkersburg Elec. Lt. Co.,	New Machinery.
Paw Paw.	D. R. Powell.	Flour Mills.
Pickens.	The Pickens Co.,	Bed Factory.
Point Pleasant.	Hayes Folding Bed Co.,	Saw Mill.
Rodersdorf.	W. R. Jaeger.	Saw Mill.
Salem.	Jesse Randolph.	Saw Mill.
Shepherdstown.	G. T. Hodges.	Grain Elevator.
Satzen.	Satzen Ferry & Wharf Co.,	Mattress Factory.
Shirley.	Ralph Sweeney.	Flour Mill.
Sutton.	Pardee, Curtiss & Co.,	Planing Mill.
Welch.	Denman & Ritter.	Saw Mill.
Wellsburg.	S. George Co.,	Mfr. Paper Bags.
Wellsburg.	W. E. Lt. Heat & Pow Co.	Electric Plant.
Wheeling.	Union Cement Co.,	Cement Works.
Wheeling.	General Engineering Co.,	Machine Shops, etc.
Wheeling.	Intelligencer Pub. Co.,	Publisher.
Wheeling.	Natl. Union Photo-En. Co.,	
Wheeling.	Wheeling Railway Co.,	Electric Power Plant.
Wheeling.	Home Dressed Beef Co.,	Ice Mach. & Elec-lt. Pt.
Wheeling.	W. C. Coffee & Spice Co.,	Mfr. & Deal in.
Williamson.	White Lumber Co.,	Saw & Planing Mill.
Winifred.	Elersha Gas & Coke Co.,	Coke Plant.
	Ashland Coal & Coke Co.,	Mine Coal & Mfr. Coke

* Reported in a previous quarterly list without full particulars as to name or purpose.

† Companies or firms in existence prior to Sept. 30, 1892, but since that time have either enlarged their works or built new works, or increased capital. In many of these cases given in this list reference is made to entirely new works built by old firms.

‡ Rebuilt or being rebuilt after being burned.

The Opportunity of the South.

[From the Baltimore Sun.]

While the election of Mr. Cleveland and the success of the Democratic party promise the happiest results for every section and portion of the country, the section which has the most occasion to rejoice and be thankful is undoubtedly the South. Even if the Democratic party should fail, which we are far from apprehending, to carry out the measures necessary to afford positive relief to the depressed industries and material interests of the North and West, the negative relief assured to the South by the cessation of Republican rule can hardly be over estimated. It means the removal of a perpetual menace, hanging like a sword over the heads of the Southern people, of federal interference with local progress and improvement and of a return to negro domination in the black districts.

The Southern people have emerged from the depression and gloom of the "reconstruction" era and of "carpet-bag" rule. The enactment of a force bill threatened to plunge them anew into all the miseries incident to a fresh struggle for political supremacy between the two races whose interest it is to live together in peace and

concord. The absolute guaranty that no force bill can be passed for four years to come, and if not within the next four years, then, in all human probability, never passed, lifts an immense load from the minds and hearts of the Southern people.

It does more. It opens the way to that inflow of Northern capital and of Northern immigration which the South needs for its future development and prosperity, and which the uncertainties of the political situation under Republican rule were calculated to prevent. The South needs a diversified industry—needs manufactures and the development of its mineral wealth. No exclusively agricultural community can ever be a rich community, and especially if its agriculture is limited to a few staples. The abundant crops or high prices of one season are offset by the

SOUTHERN OUTLOOK AS VIEWED BY BUSINESS MEN.

What Leading Merchants Think of the Prospects for Trade During the Coming Year.

Trade Is Not Good.

MOBILE, ALA., November 21.

The general condition of trade in this section is not good at present, and the outlook for the future is not promising, though the lumber and shingle trade is fairly active, and manufacturers are making money in both lines, while shippers have large orders for lumber at good margins of profit, with increasing business.

L. C. FRY,
Magnolia Compress & Warehouse Co.

The Outlook Rapidly Improving.

BATON ROUGE, LA., November 22.

The outlook for business in our section is rapidly improving, which has been brought about by the unprecedented advance in cotton and good sugar crops and good prices for same, which is very encouraging to our planting and farming interests. We look for considerable building in cities, towns and country the coming year. The Eastern and Western demand for our cypress lumber is growing daily. Large amounts of money are being invested in building saw and planing mills. Our labor is efficient and well compensated.

BATON ROUGE BRICK-YARD.

Satisfactory Conditions In Louisiana.

NEW ORLEANS, LA., November 23.

Owing to the unprecedently large cotton crop last year and the extreme low range of prices, the close of the season left Louisiana in a very unsatisfactory condition, from a business standpoint. Many unpaid balances due merchants and moneyed men had to be carried over from the past season. The extreme shortage of the cotton crop in this State, resulting from unpropitious seasons and the overflow of much of the alluvial land in June from the floods of this year, has not improved the situation, notwithstanding the very marked advance in the prices of cotton, but the situation has not grown worse. Capital, which is timid, was held back in the spring, and merchants were deterred from making the usual advances on the growing cotton crop, owing to the fact that cotton at that time was selling at prices below the cost of production. The consequence is that the small crop raised in the section tributary to New Orleans during the past year has been raised very cheaply, and as a rule the planters, where not overflowed, will find themselves in a better financial condition at the close of this season than at the close of last. It is evident, from present indications, that the cotton crop of '92 and '93 will be a phenomenally short one. This may prove a blessing in disguise. The accumulated surplus of previous years will doubtless be entirely consumed, and owing to the increased consumption of cotton, even with a large crop in '93, remunerative prices can be hoped for. This will encourage the planters and the merchants who generally supply their needs. We, therefore, think that the business outlook for the ensuing season is an encouraging one.

The rice crop of Louisiana has been a very large one, but the usual results of overproduction are being felt and the range of prices is extremely low; still, it will bring to the farming class considerable money.

The sugar crop of last year in this State was a good one, and the crop now being prepared for market promises to be somewhat better.

Money is abundant with the banks and rates are reasonably low.

FLOWER & KING.

Cause for Congratulation.

SHREVEPORT, LA., November 30.
When we consider the depressed condi-

tion of trade caused by the low price of the main staple or product of our section of country at the beginning of the present year, we have cause for congratulation for the financial success attained by our business men. To the planter and farmer in a great measure the credit is due, and by their energy and economy the present crop, though not abundant, has been cheaply made. With the present ruling price of cotton very few balances will have to be carried over to next year. Up to the present date the receipts of cotton are several thousand bales behind that of last year, but in the main business has been more satisfactory. S. B. McCUTCHEON,
Banker.

Better Financial Conditions than for Two Years.

MERCHANTS' NATIONAL BANK,
BALTIMORE, MD., December 5.

You ask for our opinion as to the actual state of trade and the outlook. Business now is and has been quite active for the past few months in nearly every line of trade, and the outlook, we think, is very bright, especially in the South, the section upon which our city largely depends. Judging from the limited demand for money from that quarter and good conditions reported by our local jobbers, we consider the South in better condition financially than it has been for the past two years.

E. H. THOMSON, Cashier.

From Now On Business Will Improve.

BALTIMORE, MD., November 26.

I have maintained for three months past that Southern securities are cheaper now than they will be in the next decade, not because of changed political or financial conditions, but because we are the most recuperative people on the face of the globe.

The depression in the South is attributable to three causes—overproduction of cotton and consequent low price, the overbooming and promotion of questionable enterprises and consequent loss of confidence and the attempt to unify into an unwieldy system all the railway interests of that section.

Cotton is experiencing a natural reaction. The boomers have come to the end of their rope, and the prompt action of the holders of railway securities is gradually but surely solving that problem.

Personal contact with many large interests and information from reliable sources convince me that we have seen the worst, and that from now on business will improve.

R. B. SPERRY,

Investment Securities.

Southern Prospects Very Promising.

BALTIMORE, MD., November 25.

In the line of finance we may say that our market is governed by general rather than local influences. If gold shipments set in the market rates for money promise to be up to a 6 per cent. basis; on the contrary, should our exports increase to an extent which will preclude gold shipments, rates will decline.

We believe the repeal of the silver act of 1890 would do more than anything else we can imagine to restore confidence in American securities and industries and induce the investment of foreign capital in this country.

Regarding Southern prospects, we consider them very promising. The advance in cotton has put new life into this section, and there are evidences of a restoration of confidence, of increased activity in trade and a renewed disposition to carry out deferred enterprises and to promote the establishment of new industries.

HAMBLETON & CO.,

Bankers.

Little Ground for Complaint.

GREENVILLE, MISS., November 23.

We see much to encourage the Southern people in the future and little ground for complaint. It is true that the cotton crop is short, but we are getting good prices—from ten to fifteen cents per pound. Seed is bringing from \$12 to \$15 per ton. The cotton mills are paying well, and we think other manufacturers in this section are all prospering. The planters have made large crops corn, potatoes and other home produce and plenty of forage. A great many in this section have hay and corn to sell in large lots. The merchants are collecting up closer than usual, because they have been very guarded and cautious in their advances to farmers and others this year. We think the South (the planters) can do next year on one-half of the usual amount used in making a crop.

On the whole, we think the outlook brighter and better than it has been for three and a-half to four years.

HEAD & CO.,

Cotton Factors.

Business Is Conservative.

MERIDIAN, MISS., November 23.

Trade in our section by the merchant and farmer is done in a very conservative way. The merchant is buying as few goods as possible, and the farmer is doing the same. Since the price of cotton has advanced and Cleveland has been elected there is a little more activity and everyone is feeling better, and the farmers will come nearer paying out than they expected, though there will be quite a number of balances carried over. We look for next summer to be a hard one, but with the small amount of goods that will be purchased by the planter on time, it will not be as bad as it otherwise would have been. The outlook for the year following August, 1893, is quite good, and we think we will see a prosperous time in our section of the country from this on for several years. This is based on calculation of cotton bringing a better price and the farmers trying to make a living at home.

THREEFOOT BROS. & CO.,
Wholesale Grocers.

Farmers Have Done Well on Food Crops.

VICKSBURG, MISS., November 28.

From most reliable information we are led to believe that the cotton crop of the Mississippi valley will be short fully one-half. This will work hardships in some lines of trade as a matter of course. Still the situation is nothing like as serious as might be supposed.

There has been raised throughout the valley during the present year abundant corn and forage crops, and best of all, the crops of 1892 of all kinds have been made on an exceedingly limited amount of supplies. The landlord will collect all his claim for rents, and with few exceptions the merchant will collect his supply accounts.

Also the advance in the price of both cotton and the seed adds cheerfulness to the situation. There will probably be considerable depression in the valley trade for a few months, but we hope with but few if any failures. The independent basis on which crops will be started for 1893, however, will soon relieve all depression, and we confidently hope that by the first of May at the farthest that all ill effects in consequence of the short crop of this year will have entirely disappeared.

PEATROSS, CAMERON & CO.,

Coal Merchants.

An Especially Bright Outlook.

CHARLESTON, S. C., November 29.

We regard the outlook for the coming year as being an especially bright one. In our conversation with our customers in the phosphate business we find a feeling of confidence that did not exist last year. Everyone is looking forward to a good season's trade. I do not attempt to analyze this feeling. I simply know that it exists.

The result of the recent election, the present price of cotton, etc., may account for it. It is sufficient to know that all the mills in this section are at work, and that they are likely to dispose of their output under very favorable circumstances.

CHARLESTON LEAD CO.,
W. S. Harrington, General Manager.

Large Surplus of Corn.

AUSTIN, TEXAS, November 29.

This part of Texas has a large surplus of corn, and is getting good prices for same from Mexico. The cotton crop is very fair and has advanced in price, which will induce farmers to increase the acreage of same next year, and the hay crop is very large. This gives us good trade, and the prospect looks very fair for next year. The oat crop is increasing every year and pays well—forty-five cents per bushel to-day. Collections very good.

R. D. CUNNINGHAM, Agent,
Milburn Wagon Co.

Stock Interests Are Better.

CORPUS CHRISTI, TEXAS, November 28.

We think the business outlook for this section of Texas very good, as after a drought of nearly three years we have had in past two months good rains, and the outlook for the farmer and business man seems bright at present. We learn the stock interests, which are the largest in this section, are much brighter, so that we can safely say there is a bright future ahead for us.

CADEN, MURPHY & CO.,
Wool, Hides and Skins.

The Best in Twenty Years.

CORSICANA, TEXAS, November 29.

I have been living in this locality over twenty years, and there has never been a time since I have been here when the conditions of trade or the outlook for the future better.

W. R. BRIGHT, President,
Texas Loan Agency.

Business Situation Is Very Flattering.

DALLAS, TEXAS, November 29.

Firstly, it is our opinion that the business situation is very flattering. We certainly have every indication to substantiate this fact, as our present business season this year opens up in September with a very low price on cotton, which to-day is worth from 75 to 100 per cent. more than the opening price, and there certainly is a large quantity of this article yet to be moved from our section. Every line of business has a better feeling, and confidence is gradually being restored all over our entire section.

We operate in some forty or fifty counties in Northeast Texas and Northwest Texas and North Texas, and we have means of judging the condition of business affairs from the fact that we are daily thrown in communication with all classes of merchants, and we cannot but feel that we have a bright future before us and our section of the State. We have daily new manufactures springing up in our section, and a showing indication of success.

It is no doubt the universal opinion of the commercial world outside of our State that we have been laboring under an immense load financially, but it certainly is our opinion at present, that these matters have all been broken, and have, to a great extent, been exaggerated by disinterested parties.

M. D. GARLINGTON & CO.,
Wholesale Confectioners.

Bountiful Crops Sold at Good Prices.

DALLAS, TEXAS, November 29.

The northern part of our State, of which Dallas is the centre, has been this year favored with very bountiful crops of small grain, corn and cotton. All of it has been harvested in good condition and sold at fair prices. We do not see any reason why business in our section of the State should not prosper during the coming year, and we think the outlook is favorable for investment in our State, especially for the wholesale business and manufacturing

enterprises that start on a safe, conservative basis.

SANGER BROS.

Bordering on a Most Prosperous Period.

FORT WORTH, TEXAS, November 29.

Present indications are that Texas, at least, is bordering on one of her most prosperous periods. The high price of cotton has made this entire country more hopeful than for the past two years. New enterprises are locating and constructing, and, on the whole, the outlook has not been so bright for a long while. Tell the people of the North that Texas invites the brain and capital of the East and offers them undeveloped resources of wealth such as no other country can present.

FORT WORTH GROCER CO.,

J. W. Spencer, President.

Prospects Are Flattering.

GAINESVILLE, TEXAS, November 28.

Outlook in this section is bright. Cotton is bringing a fair price and collections are good. Prospects for later fall trade is flattering; in fact, we anticipate a January trade equal to November. Wheat is very low, but fortunately for our country most farmers are able to hold their wheat. Our county is improving more than it has for past three years.

WAPLES, PAINTER & CO.,

Lumber Dealers.

Business Is Healthy.

GALVESTON, TEXAS, November 29.

We have not time to go into details, but will say that the present condition of business in our State is healthy and the outlook for the future very good. Our customers throughout the State, with but few exceptions, have paid up well, and have collected well themselves. The advance in cotton has benefited our State very materially.

FOCKE, WILKENS & LANGE,

Grocers and Cotton Factors.

The Outlook for Texas Is First-Class.

GALVESTON, TEXAS, November 28.

The outlook for Texas is first-class. Texas has never been as near out of debt since the war as she is right now. The late advance on cotton will give Texas \$20,000,000 more than she looked for when the crop was planted. The cheapness of last year's price of cotton taught her farmers economy, and compelled her merchants to do their business on a more conservative basis than they had ever done it before, which altogether brought about the present happy result; and if our people continue to profit by the lessons that last year's hard times forcibly impressed upon them, we may look for an era of prosperity in the near future.

M. LASKER,
Real Estate.

Splendid Trade in Every Line.

HOUSTON, TEXAS, November 26.

The cotton business of Houston, drawn from all sections of Texas and distributed to every known cotton manufacturing point, has grown eightfold in ten years. It is therefore safe to presume that the lumber and sugar product has kept pace with cotton. This growth has been made possible by the distributing advantages of Houston, and has had a most gratifying effect on all lines of trade. The banks of Houston stand out so prominently for conservatism and ability that large deposits are attracted, which, together with the banking capital and surplus, give greater commercial facilities than most Southern cities enjoy. These local advantages and abundant harvests which are being marketed at fine prices portray a splendid trade in every line.

INMAN & CO.

The Future Looks Bright.

SAN ANTONIO, TEXAS, November 28.

The outlook for trade is very flattering, made so principally by the advance in cotton, and I must say the future looks bright.

GEO. DULLNIG,

Wholesale Grocer.

Existing Conditions Highly Favorable.

FIRST NATIONAL BANK,
WACO, TEXAS, December 5.

Existing conditions are highly favorable. The year now closing has been a debt-paying era. Many old scores have been wiped out, and few new obligations contracted.

Bank deposits are 25 to 30 per cent. greater than at same date last year. The increase comes chiefly from farmers, stockmen and small producers.

Next year the farmer will not require an early credit.

There is a growing disposition to diversify crops and to plant less cotton.

The average rate of interest has decreased 2 per cent. within the last two years.

E. ROTAN, President.

Increased Business and Less Losses.

BEDFORD CITY, VA., November 25.

We regard the trade in the South as in a very good condition. Our business for this year shows an increase of 20 per cent., and losses less than usual. We regard the prospects as good for the coming year.

The condition of our county and town is good. Our farmers have good crops, and leaf tobacco is selling well. There are very few counties in the State that can produce what Bedford can. She took the premium on all agricultural products and minerals at the State fair held in Richmond in October last.

BERRY BROS.,
Tobacco Manufacturers.

Present Condition of Trade Is Satisfactory.

LYNCHBURG, VA., November 22.

We consider the present condition of trade satisfactory, but do not care to venture any predictions as to the future. So far as volume is concerned, our business has been fully up to our expectations during this year, but prices have been very low. We have decided to double our present pipe-making capacity for next year's business in order to reduce the cost of production, as our fixed charges will remain about the same as at present. We hope in this way to make some profit in 1893.

Our machine shop is well employed, and we have orders now on file that will keep this department busy until May 1, 1893. We have recently added several labor-saving machines to our machine shop equipment.

Business generally in this vicinity is in a healthy condition, and our people are fast recovering from the injurious effects of their stock speculations and lot buying in 1890.

The result of the late presidential election is satisfactory to the majority of business men in the South, but we trust that no hasty legislation will be enacted which will disturb the mining and manufacturing interests of this section.

THE GLAMORGAN CO.,
H. E. McWane, Pres. and G. M.

Trade Generally Improved.

LYNCHBURG, VA., November 24.

Business in this city is more dependent on the tobacco crop than perhaps anything else, and since the "weed" has commenced to come in, trade generally has greatly improved.

While this year's crop may not turn out to be as large as last year, the quality is better and will command higher prices, thus enabling the planter to get as much money for less tobacco. Prices now ruling seem to be satisfactory to the grower, and no doubt will keep up during the entire season. My opinion is that the business situation looks much brighter than for some time past.

JAMES M. BOOKER, JR.,
Tobacco Warehouse.

Encouraging Outlook for Lumber.

NORFOLK, VA., November 24.

The present outlook in this section for the lumber trade is very encouraging. Low grades, however, have been in excess of demand for several months, owing to the

unprecedented favorable weather for logging and curing product in the open air, thereby allowing the small portable mills to run without interruption to their full capacity. As these mills furnish a preponderance of low-grade stuff and work on small capital, they are unable to hold their product, and must of necessity throw it on the market.

North Carolina pine, however, is fast getting into strong hands able to carry large stocks, and it is only a question of a short time when the conditions of the past will be changed. High grades continue to advance, and prices are maintained without difficulty, as the care exercised in manufacturing and grading insures the consumer an article of acknowledged merit at a price much below the same grade of any other lumber. All grades are much improved over two months ago, and the prospects are for good demand and better prices.

The farming interests are not what they should be, as the people give too little attention to forage crops, for which there is an excellent and continuous home demand, caused by the many lumbering enterprises throughout the whole section, but who are forced to buy their supplies of forage and bacon from the West, as the farmers here will not raise it. On the whole, the outlook for 1893 appears to be of a very encouraging nature, and presents many chances for profitable and conservative business enterprises.

THE HITCHCOCK-TREGO LAND,

LUMBER & QUARRY CO.,

H. A. Hitchcock, Manager.

Heavy Business and Growing Rapidly.

RICHMOND, VA., November 25.

We have had a very heavy business this fall, the heaviest we have ever had, and our business is growing very rapidly, our product, blotting paper alone, moving as fast as we can make it. In fact, we are behind our business all the time. We think the indications and prospects for good trade are very encouraging.

THE ALBEMARLE PAPER MFG. CO.,
Chas. M. Boswell, Secretary and Treasurer.

Payments Good and Indebtedness Small.

RICHMOND, VA., November 25.

In our opinion there has been no time in the past ten years when the business outlook in the South has been more promising. The steady advance in the price of cotton gives our Southern country fully \$75,000,000 to \$100,000,000 more money than it had three months ago. The political field is quiet for four years, and merchants and manufacturers can give their undivided attention to business. Money that heretofore went to New York on deposit is now scattered in the banks from Richmond to New Orleans. Payments as a rule have been good, and we believe our business men owe less at this time than for many years past.

THOMAS POTTS & CO.,
Wholesale Grocers.

Temporary Financial Stringency.

ROANOKE, VA., November 22.

Looking at the business prospects of the South from present indications in this immediate vicinity, money is extremely close, and many of the banks are having difficulty in accommodating their customers in the way of loans and discounts. Looking at the industrial interests in the abstract, there is no particular change in the situation from one year ago. Building is extensive; the manufacturing plants are booking large and numerous orders, and in general having all they can do. The change in the administration seems to have a tendency to caution among investors, and will most likely cause them to hold off for a time until the policy of the new administration is made apparent. For the future the prospects are considered very bright, and as soon as a little local stringency in financial circles is done away with, business men are almost unanimous in saying

that this part of the South will see more rapid and sound development than ever before.

CUSHMAN IRON CO.,

C. G. Cushman, President.

Mexican Notes.

A BILL has been introduced in the Chamber of Deputies, in the City of Mexico, authorizing the President during the next five years to make contracts and grant privileges and concessions to parties introducing new industries into the country.

It is said that an aerolite weighing 40,000 pounds fell near Jiminez, in the state of Chihuahua, Mexico, some time ago, and has recently been transported to the City of Mexico. In falling it struck a cliff, then plowed deep furrows down the mountain side, at one point revealing a vein of silver ore. This latter has been taken up by a miner, who is now opening it with profit.

MR. ROSENDO GARCIA, of Laredo, Texas, has rented 44,000 acres of land which he owns in Mexico for five years at an annual rental of \$300 Mexican money.

ALFRED DEL BARRIO, connected with the Mexican National Railway, states that during November 2,700 bales of cotton were shipped through Laredo into Mexico.

REPORTS from the City of Mexico state that a number of important railway projects which are now on foot in Mexico will likely be consummated within the next twelve months. The announcement was made recently that the Mexican Southern, which has just completed its line to Oaxaca, will extend from this point to Tehuantepec. The preliminary survey for this extension has been completed, and construction will begin at once. Since the road has been built to Oaxaca coffee lands in this district have advanced 50 per cent. in price.

WORK on the Tehuantepec Railroad, which crosses the isthmus of Tehuantepec, is progressing rapidly.

THE Mexican (Vera Cruz) Railroad, which has hitherto not made any strong effort to secure passenger traffic, intends entering that field now, and will ask all railroads in the United States to give it ticket representation. It will offer the usual inducements of time-limit, stop-over, side-trip and through-rate tickets and privileges. This will undoubtedly attract many travelers, as it will give them an opportunity to view the magnificent scenery along the line. The gross receipts of this road during the week ending November 26 amounted to \$4,644.15, against \$71,613.14 for the corresponding period last year.

THE Mexico, Cuernavaca & Pacific Railroad Co. intends establishing permanent offices in Denver, Col. This company is now constructing a road from the City of Mexico almost directly south to the Pacific ocean, and on January 1 expects to open about twenty-four miles for operation. The total length of the line when finished will be 500 miles. At the City of Mexico connection will be made with the Mexican International Railway, forming a direct continuation of the proposed international line to the Pacific. The western terminus will be at Palizada, on a fine harbor, and here connection will be made with the Pacific line of coast steamers. This section of Mexico is practically untouched so far, owing to lack of facilities. It has long been noted for its fine resources, and will undoubtedly be developed to the advantage of both the railroad and those who invest there.

THE Cedros Hacienda in Zacatecas, Mexico, one of the largest estates in the country, comprising nearly 1,200,000 acres, was recently sold for \$5,000,000.

TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department, on page 450.]

An English View of the Southern Textile Industries.

MANCHESTER, ENG., December 10.

The wonderful rapidity of the growth of cloth manufacturing in the Southern United States is beyond question; the importation of goods from foreign sources has gradually given way to the development of the native production; spinning and weaving mills have sprung up in many directions equipped with the best machinery up to date; the many advantages afforded have been easily acquired by capitalists; the manufacturers live amidst the raw materials which are at the very doors of the mills, and the fabrics produced meet with a ready sale; labor is cheaper; the class of spinning and weaving, mainly low counts, requires only a minimum of skill.

It has been said that mistakes have been made in having mills built to produce only one class of goods. Surely no one possessed of even an elementary knowledge of the fabrication of a cloth could advance such an argument. To begin with, the mill as a building can always be made adaptable for any change of weaving machinery or spinning. All that is needed for fancy cloths is not fresh mill constructions, but merely looms qualified for such a purpose. I hold that the idea of supplying home markets with plain goods was a proper incipient, especially in a new development where of gradual training is necessary before flying at a higher game. In the old country it has taken more than a century of experience to arrive at present results. To produce goods such as heavy sheetings, drills, calicoes, etc., easily made, was a safe initial proceeding which, step by step, will be the means of causing a demand for more fancy goods, with the training of the operatives becoming more matured and better enabled to cope with the intricacies of the machines and materials.

If I am not mistaken in the energy and character of the Southerners, they are well able to see their way in surmounting worse difficulties than the weaving of an ornamental fabric and finding a market for it elsewhere than in the Northern States. They have the whole of Central America, and, if needs require, can find their way to China and Africa. The bugaboo of over-production is arrant nonsense. There are millions of people not clothed, or only with a fraction of clothing. Fabrics will wear out and renewal is desirable.

When good profits can be realized in the production of attractive textiles there will, no doubt, be a reduction in the output of coarse, heavy goods, as the latter consume greater quantities of raw material. Eventually less money will require to be sent from home, and home labor will be supplied with more profitable employment. It is a well-known fact that colors and designs do much to sell a cloth. In this respect there would seem to be a degree of aptness for adaptation to any demand. There is, however, such a thing as an unmanageable stride, and the success of the industry ought not to be jeopardized by rash speculations. To obtain markets for productions beyond home consumption it is necessary to discover accurately the taste of the consumer as to what articles are salable in each market, the quality and price; a commercial organization by the creation of a regular system of correspondents or of active and prominent representatives in the principal centres of the export trade. The way to consuming sources may be, and no doubt is, circuitous, and though it would be preferable to deal direct with a country where a demand exists, nevertheless, if the goods are sold, it would go far to snuff out the jeremiads so often poured forth in the

press of the Northern States that the manufacturing industry of the South has enlarged its production too suddenly on dull markets, causing a fall in prices and a stagnation in the trade. We in the old country firmly believe the Southern States have nearly wiped out the trade of the North in plain, heavy goods. It is a "ring" or "corner" that generally gets up the cry of excessive competition. Statistics may be made to prove anything. We know here, to our sorrow, that neither the board of trade returns nor consular reports can be received as absolutely correct statements, but that each require explanation, without which the bald facts are misleading.

Is it not something to ponder over when we know that the English manufacturer gets nearly the whole of his cotton from the Southern States, pays carriage both ways, works shorter hours, and pays nearly as good a wage and better in finer productions, and in competition with the whole world can send back his finished fabrics to the States under the fire of a hostile tariff? In plain language, our people are not shut out, but your people are shut in for want of enterprise.

It is all very well to talk and write upon the question of manufacturing goods. It is not many years ago I noticed in your Northern press prophecies of the dismal failure that would take place if the Southern States attempted cotton manufacturing on anything like an extensive scale. It would seem, however, that time is a capital almanac, and the South have shown that "actions speak louder than words" or false prophets. There is no doubt that America is destined some not far distant day to become the greatest manufacturing nation on earth. The population of the States is said to be 70,000,000, but the population of the world is estimated at 1,400,000,000, or twenty times as many, but not one-third of this vast hive of human beings are clothed in machine-made fabrics. Is there not sufficient scope for any amount of fabrics? The development of rail traffic and water communication of the Southern States is a sufficient inducement to go ahead. The new wants and cravings for comfort must be satisfied. Never in the world's history has there been a greater demand for the products of labor and capital, and to those who will persevere the best rewards are open.

J. R. L.

Advantages of the South for Cotton Manufacturing.

A few weeks ago we published in these columns an article on cotton manufacturing in the South by Mr. Henry G. Kittredge, editor of the Boston *Journal of Commerce*. Mr. Kittredge argued that the only insurmountable obstacle with which Southern manufacturers have to contend is the enervating influence of the Southern climate. Those who read Mr. Kittredge's article will be interested in the following article, which recently appeared in the *Journal of Commerce*, written by a correspondent in Augusta, Ga., who signs himself "Gilbert."

Edward Atkinson is quoted as saying that the human family, as a whole, are just as lazy as their circumstances will permit. The factory operative in the South is not forced by a long and severe winter to make such ample provision to meet the expense which the climate of New England imposes upon those who live there, consequently he may be less inclined to save his earnings, and more apt to be careless in regard to keeping steadily at work. It is also a fact that workpeople are usually diligent and efficient, either North or South, much as they are permitted or required to be by those having direction of them or authority over them.

The ease with which the necessities of life are obtained in some latitudes, and the struggle which has to be made in others to keep comfortable, has a great deal to do with the boasted ambition of the inhabi-

tants of some sections or the proverbial laziness of others. While the operatives in Southern mills are not as regular in their attendance upon their work as those employed in more Northern sections, they are not inferior in intelligence or skill. Those who have recently come to mills from rural districts where schools are not, and settlements widely apart, are frequently ignorant and uncultivated, but rarely vicious or immoral, and until agricultural work is more remunerative there will be no serious lack of help in the South to very largely increase the output of cotton goods. Skill comes from experience to laborers wisely and judiciously directed, and there will be no lack of skilled help in the South to manufacture any grade or style of goods. When mills are judiciously located and properly equipped with the latest and best machinery, such mills will be able to pay fair wages and command the service of the best of help.

As regards the social status of factory operatives in the South, I can only say that human nature is very much the same the world over. Education and environment have largely to account for the difference to be found in the social or moral condition of people. I have arrived at the conclusion that factory operatives, as a class, in the South are as moral and virtuous as the same number of persons engaged in other occupations North or South.

The wages of the rank and file of Southern mill help have been, and I have no doubt will continue to be, less than those employed in Northern mills. There are several reasons for this. One of these reasons, already given, is that the necessities of life are more easily obtained, labor has been plenty, and there are few indeed who will pay more than they are compelled to. Another is that a majority of the mills are hampered by circumstances that make the payment of high wages an impossibility. These in part are mills judiciously located, badly built, inferior or old machinery, many of them built partially with borrowed money at a high rate of interest, and operated without working capital. Such mills show, by running along, notwithstanding these conditions, the advantages of this section. Time and experience are removing these obstacles to success, and the next decade will show Southern mills that can afford, if they do not, to pay equal wages with those located farther North.

The advantage of the South in regard to climate is unquestionable. Those long cold months, from December to March inclusive, will make a difference in the expense of two mills, one in Maine and the other in Carolina, very much in favor of the latter. The best climate for the working of cotton is one where warmth and moisture can be assured. Nature furnishes these conditions to manufacturers in the South for a greater number of days in the year than elsewhere, and the appliances that are being and will be put into modern mills will make Southern mills as pleasant to work in during the summer months as Northern mills. In fact it has been proven that the temperature is not as high in elevated sections South, during the heated term, as in many portions of New York and New England, and less sunstrokes and exhaustion from heat take place among Southern than Northern laborers.

Statistics are sometimes misleading, and conclusions arrived at from them should be based upon a knowledge of all the facts, circumstances and surroundings.

An extract from a late census bureau report shows that more hands are employed per spindle in Southern mills than in New England, and also that the wages paid per spindle is more in the South. When we take into consideration that the mills in the South are mostly on coarse numbers of yarn, while those in New England are largely on fine and medium numbers, man-

ufacturers will very readily see why other causes than the want of efficiency in help at the South makes a difference in wages or the number of spindles per hand.

The cost of mill buildings should be, and I believe is, much cheaper than in New England. Brick, lumber and labor are all much cheaper, but these advantages are probably overbalanced by the cost of transportation of machinery and supplies, all of which come, and likely will continue for years, from the North. These conditions may, however, be changed when the South manufactures her own machinery from her own raw materials, or imports it direct from foreign countries when modification of the present tariff laws makes such a course profitable.

The Southern mill has cotton at its door comparatively free of expense. The bagging and ties are returned to the farmer to be reused as long as possible. Sand and seed hulls are sent direct to the manure pile without expense for freight, which consumers at distant points must assuredly pay.

As regards freight on goods from mill to market in the sections under consideration, I am unable to give any definite information. If the goods made in New England are largely sold at or near where they are made the advantage is decidedly with them. I know that the South does not consume but a small portion of her production. Some of her mills are now sending large quantities of their goods North; of course we must pay the freight. My opinion is that the South, for years to come, should keep to coarse or medium numbers, leaving to those of greater skill and experience to produce those finer fabrics where skilled and high-priced labor is an important factor in their successful production. The tendency of Southern mills, however, is to finer numbers of yarn and a better class of goods. The writer can remember when there was no mill in the South spinning finer than 14s, with one exception; now from 20s to 32s are spun in many places, and well-finished and creditable goods are being turned out.

The South undoubtedly has superior advantages over any other section of the United States as a location for the manufacturing of cotton goods. Her territory abounds in unfailing water powers which as yet have not been utilized. Her climate where these water powers exist is genial; the raw material grows in her fields as it grows nowhere else on earth. Her hills are filled with iron, coal and other minerals, which are used and fashioned by man in other lands into articles of use and utility. What the South most needs is capital, not borrowed, for that implies interest, and the removing of the earnings of one section to another leaves little behind but a plant depreciated in value.

What the South needs to make the manufacture of cotton goods a success is first-class mills with first-class machinery and intelligent management, furnished with sufficient capital with which to successfully place her goods in the markets of the world. Those who can remember the condition of the manufacturing interests of the South twenty-five years ago will concede that she has not been idle. The future will witness greater progress, not only in the making of cotton fabrics, but in diversified agriculture and mechanical achievements,

Southern Textile Notes.

THE Dallas (Texas) Cotton Mills, operating 10,000 spindles and 260 looms, has doubled its operating force, and is now employing 420 hands, working day and night.

THE Tennessee Manufacturing Co., of Nashville, has started up its No. 1 cotton mill.

MR. ARTHUR T. SMITH, superintendent of the Langley Manufacturing Co.'s mill at Langley, S. C., writes us that they expect

to put up a new steam mill of 10,000 spindles capacity, equipment to consist of the latest and most modern improvements, and that their capacity will then be 25,000 spindles and 750 looms.

THE Spring Creek Manufacturing Co., manufacturers of 4-4 sheeting, batting and 400,500 and 600 cotton yarns, has recently removed its mill from near Henry, Tenn., to McKenzie, in the same State. The company intends to enlarge its plant considerably, and to that end intends to interest Eastern capitalists. J. A. Dinnidie is secretary.

MR. J. R. CLARK, proprietor of the Washington Woolen Mills at Fredericksburg, Va., has lately added to his plant a fulling mill from the Kenyon Company, of Raritan, N. J., and a press from David Gessner, of Worcester, Mass. Machinery will be added to the dyehouse as soon as the repairs now under way are completed. The output of this factory is a fine line of cassimeres, which hold an excellent reputation in the market.

MR. THOS. BARRETT, JR., of Augusta, Ga., president of the Langley (S. C.) Manufacturing Co., has announced that the capacity of the company's cotton mill will be doubled by next summer. The erection of an addition will be commenced shortly. The present plant operates 15,000 spindles and 410 looms, and turns out sheetings, shirtings and drills. Mr. Arthur T. Smith is mill superintendent.

THE Chatham Manufacturing Co. has decided to build new woolen mills at Elkin, N. C., next year, and to that end is arranging its plans. A large new building will be erected and fully equipped with the latest improved machinery.

A PROJECT for building a cotton mill at Chattanooga, Tenn., has been revived, and W. W. Sylvester is endeavoring to secure subscriptions for a \$100,000 company. He is meeting with very favorable success.

COL. H. C. THOMPKINS has purchased the Adams Cotton Mills at Montgomery, Ala., for \$27,000. The property was sold under a decree of the city court, and was bought for the bondholders.

It is not unlikely that the capacity of the Crown Cotton Mills at Dalton, Ga., will shortly be doubled. Messrs. Brown and Spurr, Boston (Mass.) capitalists, having made a proposition to that effect. The plant is now operating 5000 spindles.

MR. W. H. CHADDOCK, of Anniston, Ala., writes us that he contemplates purchasing brading machines to brade solid cord and may establish enough spindles to make yarns for brading.

THE owners of the Manchester (Texas) Cotton and Woolen Mills have obtained a new charter under the name of the Manchester Cotton Mills, with a paid up capital of \$100,000. A. F. Hardie is president of the company.

MESSRS. CHAS. W. WILDER & CO.'s mill at Fredericksburg, Va., which produces silk, tram and organdie, is now being considerably improved. An addition is in course of erection which will be equipped, when completed, with sufficient machinery to treble the present output. The Morrison Co., of Willimantic, Conn., will furnish the equipment. This plant now employs seventy hands, but with the new addition will employ 130 more.

Public Opinion, the eclectic weekly, of Washington, D. C., which has made a feature of offering liberal cash prizes for the best essays on prominent topics, has just announced three cash prizes of \$150, \$100 and \$50, respectively, for the best three essays upon the question "What, if any, changes in the present immigration laws are expedient?" The contest is open to anyone, and full particulars may be had by addressing *Public Opinion*, Washington, D. C.

Recent Publications.

COALS AND COKES IN WEST VIRGINIA. A handbook of the Great Kanawha, New River, Flat-Top and adjacent coal districts in West Virginia. By William Seymour Edwards. Published by Robert Clarke & Co., Cincinnati. 162 pages; paper binding. Price seventy-five cents.

In this publication Mr. Edwards has collected and placed in convenient form the data relating to these important coal fields and has supplemented them with valuable work of his own. Giving first a brief but comprehensive review of the geological position of the coal measures of Southern West Virginia, he follows this with a series of tables of vertical cross-sections taken at different points in the field. These latter, including the Kanawha, New River and Flat-Top fields, are exceptionally complete and of the utmost value both to the mining engineer and owners or investors in coal lands. Following these come a series of analyses of Great Kanawha, New River, Upper Elk, Gauley and Flat-Top coals, with some interesting analyses from other regions for comparison. Chapters V and VI are devoted to tables showing the comparative gas-yielding and steam-producing powers of these coals. Chapter VII is devoted to the analyses and physical tests of cokes. Part II of the volume treats of the historical and industrial aspects. Numerous tables are given showing shipments from the different districts and some particularly interesting information as to the output, character of workings and costs at various mines. The book is a valuable addition to information concerning the coal in West Virginia and will be welcomed by all miners and others interested in the development of this field.

THE HISTORY OF THE BAND SAW. By W. Samuel Worssam, C. E. Illustrated, 43 pages. Published by Emmott & Co., Limited, printers and publishers, New Bridge street, Strangeways, Manchester, Eng. Price, one shilling and sixpence (thirty-six cents).

Mr. Worssam is the author of several well-known treatises on similar subjects, and in all shows his thorough familiarity with each and every detail pertaining to the matter under treatment. In this work he has given an interesting account of the origin of the band saw, describing the first one which was put in use in 1808 and the various improvements made in its early days.

In 1846 the first guides were invented by a French woman, and as this gave the saw a wider range of servicability it came more into general use. These descriptions of the saw, its uses and improvements are treated in a most thorough and interesting manner, reviewing the various patents issued in different countries and the gradual extension in the use of the machine. Two chapters give a good account of the method of manufacturing the saws, the quality of steel and difficulties encountered. Bringing the description up to the present day, Mr. Worssam tells of the method of sharpening and setting the saws and the machines used for that purpose. The important subject of brazing receives careful attention, as also do the various guides used to keep the saw in position.

POOR'S DIRECTORY OF RAILWAY OFFICIALS AND MANUAL OF AMERICAN STREET RAILWAYS, Seventh Annual Number, 1892. Compiled from official information. Published by Poor's Railroad Manual Co., 70 Wall street, New York.

As with all publications from the house of H. V. & H. W. Poor, this is a thoroughly accurate and comprehensive work, covering the useful range of information indicated by the title, conveniently arranged and well indexed for quick reference. Among other interesting points noted is a list of projected railroads and those under construction, giving the proposed route and other information. The list of locomotive and car-repairing shops of the larger railroads is also a good feature. A chapter devoted to the private railroads in the United States, giving the names of officers and owners, mileage, equipment, stock,

etc., is of particular interest, covering these operations in twenty-six States. The list of foreign railways in Mexico, Central and South America, with information as to officers, finances, mileage and other useful data, is very complete. The chapters devoted to city and suburban routes and street railways are of particular interest in view of the rapid extension and improvements in these means of transit. The many details given as to these are valuable to everyone interested in such properties, whether financially, as a contractor or as a manufacturer of supplies. The book is one which should be on the desk of every business house.

THE MANUFACTURERS OF THE UNITED STATES. A classified and complete reference book for buyers and sellers for domestic and foreign trade. Third edition, 1892, 2104 pages. Published by the Manufacturers' Publishing Co., 150 Fifth avenue, New York. Price \$10.

This is one of the most convenient and valuable books which can be placed in a business man's office library of references. In convenient form are given the names of all manufacturers in this country, their address and the articles which they produce. Business men know the difficulty usually encountered in trying to find the names of all manufacturers of any line of goods, and it frequently happens that this is a highly desirable thing to have; this reference book avoids any such difficulty by giving exactly the names desired and in all lines. The arrangement of names is in alphabetical order of the article manufactured, and under each head the manufacturers are ranged in the same order. The indexing is particularly complete and affords means for instant reference to manufacturers in any line. One particularly valuable feature of this book is that the publishers are making arrangements by which a copy will be sent to every United States consulate of importance, where it can be seen and referred to by merchants and others desiring to open business relations with American manufacturers. The book is well printed and in every way a valuable office accompaniment.

THE A B C OF IRON. By Charles W. Sisson. Ninety-nine pages. Published by the author, Louisville, Ky. Price \$2.00.

Mr. Sisson has collaborated from various sources much interesting information about iron, and has treated it in a manner as to be intelligible to anyone not familiar with the theory and higher practice of iron or steel-making. Beginning with a short description of the ores of iron, he then gives a chapter to the smelting process and follows this with another on the constituents of pig iron. A chapter on numbering and one on grading follow. A chapter is given to steel-making, another giving some useful tables on the physical properties of metals and still another containing some interesting statistics on the iron trade. The last chapter of the book is an extract from James M. Swank's well-known work, "Iron in All Ages." It is to be regretted that with the data at his command Mr. Sisson did not give more thorough treatment of the subject, but, as the title of the book indicates, his intention has been rather to give only such general information as might be interesting to those not wishing specific knowledge on any of the points treated.

Early English Coke-Making.

The first record of coke-making is probably contained in Sir John Evelyn's diary. Under date of July, 1656, he writes: "Came home by Greenwich Ferry, where I saw Sir John Winter's new project of charring sea-coal, to burn out the sulphure and render it sweete. He did it by burning the coals in such earthen pots as the glasse-men meatl their mettal, so firing them without consuming them, using a barr of iron in each crucible or pot, which barr has a hook at one end, that so the coales being meatled in a furnace with other crude sea-coales

under them, may be drawn out of the pots sticking to the iron, whence they are beaten off in great halfe-exhausted cinders, which being rekindl'd make a cleare pleasant chamber fire, deprived of their sulphur and arsenic malignity. What successe it may have time will discover." —*Connellsville Courier*.

Marine Notes.

THE steamship Swedish Prince, the first of the regular line of steamships to run between Charleston, S. C., and the Mediterranean ports, sailed on the 10th inst. She carried a large cargo of mixed merchandise. This line was established by English ship owners, together with the Baltimore & Ohio Railroad Co. Hereafter a vessel will sail from Charleston each month.

THE Atlantic Transport Line of Steamships, sailing between Baltimore and London, has had an addition of two fine new vessels added to its tonnage, increasing it to nineteen steamers of 114,400 tons. Mr. Bernard N. Baker, president of the Baltimore Storage & Lighterage Co., recently returned from Europe where he secured the steamships Sabraon and Plassey, owned by the African Steam Navigation Co. of London. In design they are duplicates of the steamship Minnesota, and are about 5,000 tons each. They are at present in London undergoing extensive alterations, and will be placed regularly on the line about the middle of January next. They will have their names changed to Memnon and Mexico, to be in harmony with the names of other vessels of the Atlantic Transport Line. President Baker is to be congratulated on his great success in the management of this line of steamships, as well as the interest taken in organizing lines of steamers from Philadelphia and New York to England.

THE steamship Baracoa, the first of the new line from Pensacola to Havana, to be run in connection with the Louisville & Nashville Railroad, sailed from Pensacola, Fla., on the 16th inst. The cargo consisted of eighteen cars of flour from St. Louis, besides local and broken freights. A prominent railroad official stated that the company were in receipt of letters daily asking for particulars as to days of sailing and rates. The cargo is considered a most satisfactory one for the first trip, and the business now in sight gives promise of another vessel early next year.

THE Swedish Prince, bound for Charleston for a cargo of cotton to Barcelona, met with rough weather in the Gulf, and will not make the voyage. Mr. Knott, the owner of the Prince Line, has ordered the Spanish Prince, now at New York, to proceed at once to Charleston and take the place of the Swedish Prince. The Merchant Prince, now at Boston, will also sail for Charleston within the next few days. Both will take full cargoes of cotton to Barcelona and Genoa.

THE Deer Creek Farmers' Club, of Harford county, Md., which ever since its organization in 1873 has manifested a lively interest in road improvement, being assured of influential co-operation, has issued a call for a State road convention, to be held on the 11th, 12th and 13th of January, 1893, at 11 A. M., in the hall of the Young Men's Christian Association building, corner of Charles and Saratoga streets, Baltimore. Representatives of the various agricultural societies, farmers' clubs, granges, road leagues, railroad and other transportation companies, the Baltimore city Board of Trade, institutions of learning, the Maryland Wheelmen's League, together with individuals interested directly or indirectly in the improvement of the public roads of our State, have been invited to be present. The club has received satisfactory assurances that the movement will meet with encouragement.

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BALTIMORE, DECEMBER 30, 1892.

Notice to Advertisers.

The last forms containing advertisements are closed on Tuesday afternoon. New advertisements or changes should be received not later than Tuesday noon to ensure attention in the issue bearing date of the following Friday. Reading matter should be in our office on Wednesday, although late news can be received early Thursday morning.

A SUMPTUOUS cover of white and gold encloses the Christmas issue of our friend *Dixie*, of Atlanta, Ga. *Dixie* has issued several special editions heretofore that have been very effective, but the present issue is far ahead of any previous achievements in this line. The special articles upon various Southern industrial topics are of more than passing value and interest.

REPORTS from all parts of the South show that this is going to be an unusually good year for tobacco growers. Thus far but a comparatively small amount of high-grade leaf has been seen on the market, but all qualities are commanding good prices and meeting a ready sale. This will be a strong inducement to increase the acreage next year, but care should be taken to avoid overproduction.

OUR Chattanooga friends, the *Times* and the *Tradesman*, are at home in an elegant new building which has recently been erected for their use. The entrance to these new quarters is made the occasion of a souvenir edition of the *Times*, which devotes fifty-two pages to the interests of Chattanooga. As we are just enjoying the comforts of our new building we know how it feels, and we extend our congratulations to our friends in Chattanooga.

It is a pleasure to note the revival of interest in the extensive iron ore deposits at Llano, Texas. One company at Bessemer, a short distance from Llano, has

sunk a shaft 110 feet, and is now working in twelve feet of rich ore. Some 500 tons have been taken out and preparations are being made to ship it to Alabama as soon as the railroad completes a switch to the mines. We have frequently referred to this valuable property, and are justified in saying that it cannot be long before it is taken hold of and developed as energetically as it deserves.

A SUGGESTION has been made by the *American Grocer* which is worthy the attention of New Orleans merchants, that is, the erection of elevators and warehouses for handling the rapidly increasing rice crop of Louisiana. Each year the yield of this grain has become greater and a larger acreage has been planted, but there are yet many thousand acres of land in the State now useless which could be brought under cultivation in this grain. Better facilities in New Orleans for handling the rough crop would encourage planters to extend their operations. It is very certain that if the crop continues to grow even as it has done for the past three years, some means must be provided for handling it other than those now in use. During this season the rice mills have been fairly blockaded with rough rice and planters experienced considerable difficulty in marketing their crop. A rice elevator would avoid this and, from any point of view, would be a paying investment.

WHETHER or not sugar-beet factories will pay in the South will soon be demonstrated by the one now almost completed at Staunton, Va. In other parts of the country they have been successful, and the owners of this one expect equally good results, and that they may have is our hearty wish. The beet-sugar industry has been developed but little in this country, not more than five or six factories having been erected, while in Europe there are many times this number and each year shows an increase. A beet-sugar factory means for the farmers in the neighborhood a market for one of the best-paying and easiest-grown crops they can plant. The yield of sugar beets per acre varies from six to twenty-two tons, the average being about fourteen tons. These are worth from \$3.50 to \$5.50 per ton at the factory, depending upon their condition and sugar contents. Taking the average at \$4.50 and fifteen tons per acre, the gross value of the crop would be \$67.50 per acre. From the experiments and actual work of growing in various parts of the country, the cost of raising, including planting, cultivation, harvesting and all incidental expenses, varies from \$1.20 to \$2.60 per ton, with an average of about \$2, or \$30 per acre, leaving a net profit of \$2.50 per ton or \$37.50 per acre. There are few crops which can make so good a showing.

THE general improvement in commercial interests in the South is showing in many towns which have been suffering from collapse as the result of over-stimulation during the boom of two years ago. Several of these are now recovering from their depression, and the indications are that a number of them will have a steady and prosperous growth. Middlesborough, Ky., which suffered greatly from the financial depression two years ago, shows marked indications of a revival in both mercantile and

manufacturing interests. The most important industry there, the Watts Steel & Iron Syndicate, which has been prevented from completing its works until recently through complications with the failure of J. P. Witherow, of Pittsburg, now has practically finished the furnace plant and is preparing to go into blast during January. The casthouse is being filled with sand, and a large supply of ore, coke and limestone has been placed in the stockhouse. This, together with the arrival of a large number of employees, indicates a speedy commencement of operations. The steel plant will probably not be completed until March or April, as there is still a great deal of detail work to be finished. This plant is the only one which has as yet been built in the South with a thorough equipment, and its success is greatly to be desired, as such would definitely prove the feasibility of producing steel from Southern ores.

Orange Culture in Louisiana.

Orange culture in Louisiana has always been profitable when properly conducted, but of late years it has been rather on the decrease, owing largely to the manner of packing and selling, as well as less attention given to make the fruit present a good appearance. There is no doubt but that oranges nearly or quite as fine as those grown in Florida can be cultivated in Louisiana. It has been proven by trial, but to succeed commercially requires attention to many things which have been disregarded hitherto by the majority of growers. W. P. Reddick, of Buras, La., who has been particularly successful in his efforts at raising fine oranges, points out in a recent letter to the Audubon Agricultural Association some of the reasons why orange culture has not grown as it should, and states that in his opinion it is partly owing to the present system of selling, by which the grower or merchant ships only on orders and not on consignment, and consequently when orders do not come in the home market is glutted and prices go down. It is in this that the Florida Orange Growers' Association has accomplished so much good for the growers, and it would seem that some similar institution in Louisiana could do good work.

One thing which growers of this latter State should stop is shipping their oranges and branding them as Floridas. By doing this, and it is continually done, the Louisiana orange loses its identity and the State gets no credit for the product. The straightforward plan is best, and with proper attention it will be possible for the Louisiana brand to win for itself as good a name and position as Florida now holds. The matter is well worthy of the attention of orange-growers in the State, and if they will take concerted action they will succeed in benefiting themselves and the State at large.

Fires in Cotton Warehouses.

In our issue of October 21 we referred to the insurance rates on cotton in Memphis, St. Louis and New Orleans and of the efforts of merchants in the former city to have the rate reduced from 3 per cent. to 2 per cent. as in the other two. This was resisted by the insurance companies on the ground that the fire service was not so satisfactory. We pointed

out at that time the small part which a fire company plays in a cotton fire in so far as saving cotton is concerned, and our views are fully affirmed by the experience of a correspondent whose letter appears in this issue. This shows clearly that the fire department and means of extinguishing fires are less important factors than measures for the prevention of fires and the confining of such disasters within small space. The most important considerations are that no cotton but that in a single compartment shall be destroyed, and that there shall be the utmost facility for reaching burning cotton with water. In Memphis, New Orleans and other cities where cotton is received and stored the average shed is provided with an elaborate but practically useless equipment for putting out fires, and provisions against their occurring and spreading are entirely inadequate.

The origin of cotton fires is generally shrouded in mystery. It may be from a spark, cigar or pipe ashes, latent fire in an unsuspecting-looking bale or spontaneous combustion. It affords a fine field for the imagination to range in, and generally one supposition is about as correct as another. Every shed manager knows that a fire may occur at any time and in any place, and his business is to prevent it from spreading. With the average constructed cotton shed this is not possible. The fire walls are well enough in their way and tend to confine the flames to a limited space, provided that the roof does not deflect them into other compartments, and provided also that cotton which has been turned out for inspection is not close enough to become ignited, and provided further that the sparks and flaming wisps of cotton carried about in the air cannot reach any of the other compartments or any cotton on the floor awaiting buyers' inspection, and, lastly, provided that the walls are sufficiently heavy not to crumble from the intense heat and showers of water.

The means of avoiding disastrous cotton fires are heavy division walls and the absolute separation of cotton in different compartments; roofs and ends which can be torn down to allow a stream of water to be directed into the flames, and, with these, strict rules to prevent cotton "turned out" from being allowed to stand where there would be the least danger of its igniting and carrying the flames to other parts of the shed. The matter is worthy of a strong effort on the part of planters and others to compel warehouse and compress people to build suitable sheds. The insurance in New Orleans on 2,000,000 bales of cotton at 2 per cent. is a big figure in the total. In Memphis on over 600,000 bales at 3 per cent. it is a great expense to the planter. If these figures could be reduced to 1½ per cent. in both cases there would be a saving to everyone and to the insurance companies in the reduced chance for fire. All of the present rates are with a co-insurance clause which compels the shed owner to accept a part of any loss which may be occasioned by fire. With a larger outlay in erecting a suitable storage shed the owner would reduce his losses, be enabled to save by more convenient methods of handling the material and could afford, consequently, to charge the planter less for storage.

CORRESPONDENCE

The Construction of Cotton Warehouses.

MONTGOMERY, ALA., December 22.
Editor Manufacturers' Record:

It does seem that the experience from cotton fires goes for naught.

The news has only recently come to us of a fearful conflagration right in the very heart of your own fair city, whereby the warehouses of Messrs. Alexander Brown & Sons were destroyed, together with the enormous amount of 17,000 bales of cotton, and our reports state there is not enough left to tell what became of the rest; that the salvage account was absolutely nothing.

Insurance companies are beginning to look deeper into the structures improvised and used as cotton warehouses, and this is proved by the very recent conflict between the Memphis local companies and the board that fixed the rates for there and New Orleans. This board, I am told, sat in Cincinnati and fixed the rate on Memphis cotton warehouses at 3 per cent., and those of New Orleans at 2 per cent., and this the Memphis people claimed was discriminating.

Just how they harmonized their differences, if indeed they did harmonize them, I do not pretend to know. But I do know that many of the cotton warehouses of Memphis are nothing but fire traps, so to speak. They were expensive in the extreme to build, and no provision was nor is made for salvage. The exterior walls are of brick and stone and must be not less than twenty-two inches in thickness, and with no openings except just a sufficient number to admit of transacting and carrying on the business, i. e., of receiving and discharging through.

Therefore it is a matter of impossibility for the firemen to successfully fight a cotton fire, for everyone knows that you cannot put a fire out by throwing water in the flames, for the small stream of water coming from a fire engine and falling upon an immense area of flames is at once converted into steam and passes off without any perceptible effect upon the fire.

To successfully fight or put out a fire, you must needs get directly at the base of the actual property being consumed, and this cannot be done by throwing the water over walls ranging from sixteen to fifty feet high.

I claim that the secret of putting out a cotton fire is to get at the cotton as rapidly as you can, and that the exterior walls of all cotton warehouses should be (and the day is fast approaching when they will be) made of corrugated iron, or some other light fire-proof material that is easily and quickly removed, thus allowing the water to receive its full value in being poured upon the burning cotton, and the steam that is made thereby at the same time extinguishes the flames, and your salvage account will be more than 100 per cent. greater than it now is.

Surround each and every compartment perfectly and completely, so that when a fire breaks out in one compartment the flames cannot lap around the fire-walls nor over them and ignite the adjoining compartment, and thus you reduce the surface of fire to fight to a minimum.

I am fortified in my opinions by the brightest minds of people who have given the matter of cotton fires thought, and I need no greater commentary than the rate of 1½ per cent. the Southeastern Tariff Association placed upon a structure built in conformity to the ideas and plan as herein set forth. The plant thus rated is not less than a mile from the nearest fire steamer, and has within its walls a compress, with boilers and engine and dynamo. The rate quoted here, on warehouse and compress combined, is the lowest in the United States.

I am indeed glad to see you agitating a subject that is of so much interest to the cotton people, for every year there is enough lost in cotton fires to build perfect warehouses throughout the entire cotton belt.

It is idle for us to sit silently still and say, "Oh! Well! It don't hurt me or my company. We didn't have anything on that or this fire." I say we are all interested, for what interests one interests all, and it is folly to think that the cotton people escaped loss upon the recent notable fires in Baltimore and various other places. **WILL W. BIERCE.**

Immigration the Hope of the South.

ATLANTA, GA., December 23.
Editor Manufacturers' Record:

No truth can be more clearly demonstrated than that immigration is the hope of the South. Whenever one attempts to arouse the people upon a subject about which they have hitherto given little thought, he stands in danger of being called an enthusiast, or possibly a fanatic. And yet "everybody's business is nobody's business." Somebody must run the risk of being pilloried for heresy. If I should be brought to face a "Diet of Worms," I shall expect to find in your paper an advocate.

There are some natures so conservative that they instinctively recoil from all changes. Such people do not directly antagonize progress; they simply chill it to the marrow by frigid indifference. There are many people who have reached the conclusion that the West is the only place for immigrants upon no stronger premise than that most of the immigrants have gone there in the past.

The immigrant goes wherever he can get the most for the least outlay of money and labor. He is persuaded to settle in one place or another in just the same way that a mercantile house solicits business. Convince an immigrant that he can buy lands cheap, that he can find markets for his products, have good health and be protected in person and property, and you can get him. If the South can do this we can turn a tide of wealth into our reservoir that will go on producing and reproducing until our section is rich beyond anything we now contemplate.

Georgia has millions of acres of uncultivated soil that will yield a larger money dividend per acre than the best soil in the valley of Dakota or the prairies of Kansas. While the lands of central and south Georgia grow little less than one-half as much corn to the acre as the Northwest, yet the corn sells in Georgia for nearly three times as much as it does in Iowa. It gains in price what it loses in quantity. An acre of syrup cane in south Georgia will yield 400 gallons of syrup, worth on the minimum market thirty cents a gallon. This cane can be grown at a less cost per acre than corn in Illinois. And yet while the farmer of Illinois is paying a tax on land valued at \$50 to \$100 per acre, the south Georgia farmer is paying a tax on land rated at from \$5 to \$10 an acre, with about the same rate of taxation. In the matter of vegetables and fruits Illinois and Georgia are not to be mentioned in the same breath, so far does the latter excel the former. On account of the light and loamy soil of south and central Georgia about twice as many acres can be cultivated to a single plow as in the stiff clay lands of the Middle States or the black prairie of the West. Should an Illinois man read these lines he will sneeringly ejaculate, "why don't you prove your propositions by doing them." I answer, "we are doing these things every day."

There is a gentleman who lives near Savannah who is known to have netted as much as \$10,000 a year clear profit on 120 acres of land devoted to truck farming for several years past. Another in Houston

county has even beaten the record of the Savannah gentleman. All over that section of the State instances can be found of the most surprising commercial results from intensive and intelligent farming. That these are exceptions rather than the rule is the fault of the planters, and not of the plantations.

There are very few well-educated farmers in Georgia as compared to the whole number. The fact that many of the people have wrested a livelihood from a soil so miserably cultivated is clinching evidence of its great fertility. The methods of a great mass of the Southern farmers are miracles of mismanagement, and nothing except our generous soil and sunshine has kept them from universal bankruptcy. If the farmers North and West worked no more and managed no better than those of Georgia a great famine would follow.

If the farmers North knew what Georgia really had in the way of resources, and that most of their prejudices against this section were without foundation, I am convinced they would come down in great numbers. And why not? Think of lands yielding as I have already indicated which can be bought at from \$5.00 to \$10.00 per acre, and in some cases even less, with a rate of taxation averaging less than 1 per cent. The average taxation in the counties of Georgia is about eighty-five mills on the dollar. Even the farmers of the mountain districts of Georgia are uninformed and prejudiced against south and central Georgia. With them the phantom of malaria is a great "willipus-wallapus." Nothing dispels this fright but an actual visit. In the spring of this year a firm operating a small saw mill in north Georgia located their mill in south central Georgia, on the lands of the company of which I am president, and began sawing for us by contract. They saw the splendid crops of this year and were surprised and delighted. The soil yielded so much better than any other they had ever seen before they thought it a little El Dorado. They bought a small body of land from us from which the trees had been cut and will pitch a crop next year. Their relatives and friends came down and saw and bought. Within a short time a small colony from north Georgia clustered near our mill in Wilcox county. To encourage them we sold the lands very cheap. These people took the money for which they sold each acre of their north Georgia property and bought three or four acres from me. Actual knowledge cured their prejudices. So it did in the case of the German settlers from Ohio, who went to Houston county, Ga., which is only a little way from Wilcox county. These Ohio settlers have made the Fort Valley district famous as a fruit and truck-growing section and advanced the value of lands from almost nothing an acre to \$25.00 to \$30.00 an acre in a few years.

It is impossible in a short letter to forecast the future of the South, if the world should be properly enlightened in regard to its resources. The duty of disseminating the truth rests upon those who live here. The earlier they do it the quicker will come their reward. **C. J. HADEN.**

A Promising Outlook.

RALEIGH, N. C., December 16.
Editor Manufacturers' Record:

The prospect for Southern development is much more encouraging than at any period in the history of the country. It has been thought by some that the failure of a number of the town enterprises in Virginia and Kentucky would retard the general progress of this section, but their predictions failed to come true. Many people from the Northern States are coming in. The great trouble with the town promoters has been that they depended on local capital and local people to develop the enterprises, and in all such instances a failure

has been the result. The sections that have sought settlers from the North are improving.

The effort at building a health resort and fruit industry in the sand hills of North Carolina is an instance, where the wisdom of a far-seeing Southerner has come into use. The place was advertised North and Northern people induced to locate, and the consequence is the stockholders in the enterprise received this year 12 per cent.

There was one peach orchard of 55,000 trees put out within the last twelve months, and more than 2,000,000 vines, fruit, berry, shrub, bushes and trees set out. There was \$4.40 net per acre made on blackberries this summer. Forty acres are being put out in pecan trees by a Pennsylvania company. A company has been organized and will soon plant ten acres in fig trees.

Town-building must be in the hands of enterprising men—men who know how and when to advertise. The location or the opportunity is not the cause of failure, but the fault of the parties in charge.

The company operating in the big swamps of North and South Carolina is demonstrating the fact that the lumber can be taken out of the swamp lands of the South at a large profit. They built a large dredging boat, and first dug a canal forty feet wide, and from this smaller canals every 1,200 feet. They use skids in pulling the timber into the canals and then float it to the mills. **E. C. ROBINSON.**

GENERAL NOTES.

Brief Mention of Various Matters of Current Interest.

THE Hampton Roads Rendezvous Association met at Newport News on December 14. Col. Geo. W. Johnson, the president, stated that letters had been received from a number of persons to the effect that no bill had been offered in Congress making an appropriation for the Hampton Roads rendezvous next year. Resolutions were passed giving the president authority to appoint committees on this and other matters.

AT a recent meeting of the Agricultural Institute at Brussels Professor Damsaux read a paper on the enormous resources which the sea offers to agriculture through the fatty substances extracted from fish, oysters, whales, etc. To convert this substance into an article of commerce the offals of fish are reduced to a dry powdered mass which is without odor. The product when marketable contains 12.65 per cent. of azote, 12.65 per cent. of phosphoric acid and 10.48 per cent. of potash. After extracting the oil the meat is sold for consumption. This industry is growing rapidly in Belgium, and the product sells for about \$4.00 per ton. It is extensively used to advantage in the culture of grapes, flax, hops and for leguminous plants on account of the potash it contains.

THE Truck Farmers' Association, of Charleston county, S. C., held a meeting on December 7, at which was discussed the rates now given by railroads from Charleston, Savannah and Norfolk to the North. President Lawton stated that these were so much against Charleston as to prevent their shipping produce in competition with the other two cities. He also called attention to the fact that these railroads charged sixty-one cents to carry potatoes North, and make shipments to the South for thirty-four cents. It was decided to appoint a committee to present the matter to the railroads and ask a reduction of eleven cents on barrels, eight cents on crates and two and one-half cents per quart on strawberries, on which the rate now is seven and one-half cents. If the railroads will not endeavor to give more equitable rates, the matter will be carried to the railroad commission.

RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department, on page 480.]

The News of Wall Street.

[From our own Correspondent.]

NEW YORK, December 27.

The year closes with most active stocks ten to fifteen points or more lower than last January's figures, and a feeling of vague apprehension in the street the like of which has not been within my experience. For it is a temper, a tone, an "undercurrent," as the weather-wise in this little storm-centre of billions like to call it. That is to say, feeling argues more strongly than logic. The fact that a whimsical gentleman arranged to have some of his money tied up in gold bullion and let it become known was a potent influence with those who knew it was a mere whim. The street is dead scared to death on the currency question. It blames Secretary of the Treasury Foster for talking confidently of the government's ability to keep gold from rising to a premium. It blames pretty nearly everyone, even the monetary conference, for calling attention to the silver question so vociferously; it blames banks for hoarding gold; it blames Sherman and Gresham alike for formulating contradictory laws, one a statute, one a financial proverb. It whistles to keep its courage up, and cannily puts gold clauses in its contracts. Perhaps most of our speculative financiers (and who knows how many of the great men of the big banks) blame the silver question anyway for being beyond their understanding. At least one of the heavy weights told me that was the greatest fault he had to find with it.

* * *

As regards the fall of stocks, that is not a matter of today or yesterday. Stocks are cheap. I won't go into details or reasons of why they are down so far, for the yearly reviews of the market will be out next week for those who care to study them. But the year's end finds the financial position of shares and bonds in general better, I venture to say, than the beginning did. There is an increase in the number of dividend-paying railway shares; more bonds are paying coupons. Philadelphia calls attention to the fact that she will disburse this week \$10,000,000 in such payments on stocks and bonds, presumably pertaining to her own local interests. Railroad earnings, as reported, come in favorably. Money is plenty; railroads are raising it in large sums to prepare for a year which promises a larger influx of money from abroad than even France realized from her recent fair. There is very little apprehension of "tariff smashing" and the consequent trade upheavals it would cause. Nothing but the currency question bothers anyone, in fact.

When stocks are away down, and nothing is in sight to make them so; when the country is exporting its products at good prices; when a Christmas trade like the past week has demonstrated the comfortable financial situation of the whole people, then is no time to be "feared of spooks."

* * *

There is one spook, however, that fears everyone with capital to invest in railway enterprise. A little remark will illustrate what that spook is:

You railroad men have 15,000 votes; they aren't worth a damn compared to 50,000 farmer votes.—Governor Tillman.

This governor, in pursuit of farmer votes, signs railroad legislation of the wildest anti-corporation sort; appoints an ex-preacher and two others who know nothing about railroad management to be commissioners with absolute power over rates and regulations of the lines within the State, all tending of course to reduce the railroads' revenue. As a matter of fact, these

blood-thirsty corporations in South Carolina haven't paid dividends nor interest these many moons, and are being operated by receivers. They have had hard luck in many ways. Legislation aimed to cripple them still worse is passed in pure ignorance by the Farmers' Alliance propaganda to "benefit the farmer."

Here is another consideration. The railway mileage of the United States now amounts to 176,663 miles of track. Of that only 4062 were built, about one-third of the extent built in 1887, when the railway commissioner idea began to develop such startling apprehension. This year five States built no track at all, viz., Vermont, Connecticut, Rhode Island, Delaware and Nevada. They needed none, speaking by and large. But Kansas—granger, Simpsonized and be-Pfeffered Kansas—built one mile on a local belt line, and that was all. People aren't putting up money to build railroads in be-grangered States. The farmers call the railways a curse. They have their remedy. Make it impractical to build them by preventing anyone from buying the bonds and stock to build them, or putting those built in the hands of men whose views on the proper management, even though they know nothing of practical railroading, shall override the policy of men who have made it the business of their lives.

What are you to do without railroads? They build rolling mills, open mines, haul away your farm products, add millions to the actual wealth of the territory through which they pass. Railroads cannot exist without merchandise to haul. It is their policy to stimulate traffic. They build through a waste and it becomes dotted with factories and all kinds of industries. These places make markets for agriculturists if they did but realize it.

* * *

No thanks to these gentlemen from the rural districts, the anti-option bill is for the present out of sight. I was talking to a broker whose customers loaded up early with cotton futures. They have made three cents a pound on that cotton by acting on his advice. Now, does the poor planter lose that three cents to the Wall street speculator? Why, bless your soul, they bought those futures while the crop was growing. Some gentleman, who thought cotton was going to glut the market and over-supply the world, sold that cotton before he had it and had to buy it for more than he sold it for. So he is the man who is burnt. It seems like reciting the alphabet to say these things, but many people do not seem to realize that they are truth until they are repeated to them, and many really do think that grain "gambling" and stock "gambling" and cotton "gambling" really do affect their interests.

* * *

The trusts have sort of got over their rattle. Perhaps prices were manipulated too high. They will have ups and downs for a long time to come, independently of their real value, until their market position is assured. They fell because they were largely held on margins, and a money squeeze wiped out their holders' resolutions. The people controlling the share capital of the various industrial concerns thus capitalized didn't go about begging people to take their shares.

* * *

There comes a highly favorable report from Philadelphia concerning the American Cotton Oil Co., from President Butcher, who, I remember, was not active in founding this well-established consolidation of competing interests into one co-operative company. Mr. Butcher says the eight mills are turning out oil at fifteen cents a gallon more than it sold for a year ago, and that the seed brings \$2 a ton more. The company will pay at least a 5 per cent. dividend, probably more. Cotton oil is grow-

ing to be more largely used year by year as its virtues are becoming more widely known in the kitchens of the land, and it does make most excellent olive oil, as my own palate can testify from memory of many a delicious salad.

* * *

The Northern Central, I am told, contemplates building from Canandaigua to Buffalo, so as to be in person on the field for the lake grain traffic which it now receives from that port over the New York Central's tracks. It should mean more business for the port of Baltimore, which is my excuse for calling attention to the subject. The traffic arrangement with the New York Central is a satisfactory one as those things go, but a railroad directly with a centre of derivation of traffic like Buffalo should be very much better.

* * *

Talking with a gentleman largely interested in Southern coal and iron today, he said he had learned within a week of \$2,000,000 placed in a manufacturing enterprise in a Southern State, Alabama—I suspect—but he said he was not at liberty to give me any details.

* * *

The receivers of the East Tennessee, Virginia & Georgia Railroad announce today that they will pay at the Chase National Bank in this city, after January 1, interest on the following bonds: First mortgage 7s, divisional 5s, Alabama Central 6s, Knoxville & Ohio 6s and Louisville & Southern 5s. Also, as receivers of the Memphis & Charleston, they will pay on January 3 the interest due on its bonds on July 1 of this year, with 6 per cent. interest on the interest delayed. The interest due January 1, 1893, is to be deferred. The company is to build car shops at Sheffield, Ala., soon.

Florida Central Extension.

Financial arrangements have been satisfactorily effected for the Savannah extension of the Florida Central & Peninsular. The bonds have been sold to a most responsible institution at a price entirely satisfactory to the shareholders and directors of the company. The line is under contract to the Southern Supply Co., of Atlanta, Ga., which engages to finish the work by September, 1893, and the company anticipates opening the extension for business in the fall of 1893. This new road will, according to President Duval, of the Florida Central, offer to the Richmond & Danville, Atlantic Coast Line, Georgia Central, East Tennessee, Virginia & Georgia and other railroads the shortest line to all points in Florida. The road will be built in the most substantial manner with extra heavy bridges and 70-pound rails. On its completion the Florida Central will virtually have its northern terminus at Columbia, S. C., to which point the South Bound extends from Savannah, and will wield a powerful influence in Florida transportation business.

Two More West Virginia Railroads.

Two more new railroads were chartered in West Virginia on December 2. They are the Point Pleasant, Buckhannon & Tygart's Valley Railroad Co. and the Cumberland Railroad Co. The former has a privileged capital of \$1,000,000 and proposes, according to its charter, to build a line beginning at a connection with the West Virginia Central & Pittsburg and Baltimore & Ohio Railroads at Belington, Barbour county, and run through Barbour and Upshur counties to Buckhannon; thence through Lewis, Braxton, Gilmer, Calhoun, Roane, Jackson and Mason counties to Point Pleasant, where it is to connect with the Kanawha & Michigan and Ohio River roads. The incorporators are: James H. Hanson, W. G. L. Latton, Crede W. Hart, William Past, Thomas

S. Farnsworth, John A. Crislip, Samuel C. Rusmisel, Jacob G. Hall, John H. Hirsh and Jacob W. Heavener, of Buckhannon, and Charles J. Goff, of Clarksburg, W. Va. They are all well known and prominent business and professional men of West Virginia, directly interested in the development of the State's resources. They have selected a route which is not now covered by railroads and which passes through splendid timber, coal and agricultural territory.

The other road is incorporated by James A. Mulholland, C. A. Wilson, E. W. S. Moore and Hopewell Hebb, of Cumberland, Md.; James Parsons, of Davis, W. Va., and T. B. Davis, of Keyser, W. Va. The charter calls for a line beginning in the Piedmont & Cumberland Railroad, in West Virginia, near Cumberland, Md., and passing through the counties of Mineral, Grant and Hardy to a point near Moorefield. The capital stock is \$100,000.

Interstate Commerce Report.

The sixth annual report of the interstate commerce commission has been transmitted to Congress. In reviewing recent judicial decisions which have been accepted as curtailing the powers and usefulness of the commission, the report says: "Judicial construction has not invalidated the essential features of the statute nor condemned the general principle on which it is founded, and only in respect of appliances for carrying its main purpose into effect has the law been weakened by the judgment of the courts."

The late decision of Judge Gresham that Congress cannot constitutionally require the federal courts to use their process to compel the production of testimony before a non-judicial tribunal, and that therefore the provision to that effect in the interstate commerce act is null and void, is discussed. This, it is held, merely destroys an important though not vital piece of the machinery provided to enable the commission to perform its duty under the law.

The commission submits to Congress proposed amendments to the law remedying the defects referred to, especially in respect to the immunity shown to witnesses, the power to compel the production of testimony and to permit pooling under certain conditions, and penalties for infraction among the railways.

Other subjects treated in the report are Canadian competition, interstate traffic not subject to the act, statistical work of the commission for the years ending June 30, 1891 and 1892, government aided railroad and telegraph lines, fourth convention of railroad commissioners, relations of railway companies and their employees.

Railroad Notes.

GENERAL MANAGER GEO. W. STEVENS, of the Chesapeake & Ohio, states, in reference to the new depot contemplated by his company at Richmond, Va., that it will be one of the finest depots east of the Mississippi.

THE announcement is made that the reorganization of the Texas Central, the details of which were published in our issue of November 4, has been completed. Several important extensions are contemplated.

THE West Virginia Central & Pittsburg will enter the new year with a most promising outlook for a heavy traffic. The indications limit the volume of business to be offered only to the carrying capacity of the road.

THE arrangements for funding the bonds of the Georgia Midland & Gulf Railroad Co. have been perfected. The plan provides for the issuance of 4 per cent. mortgage bonds and a series of income bonds. The exchange will soon be made.

COAL AND COKE.

Development of the New River Coal Field.

The surveys and examinations made several years ago of the Connellsville coking coal field showed that the total area was less than generally supposed, and that with the steadily-increasing production its exhaustion was within the limits of human consideration. The demand for a coke of the Connellsville quality has been so extensive in the past few years that there is a prospect that it may become a scarce article before many decades have elapsed. Persons interested more or less directly in the matter have been casting about for some time in an effort to find a section which could produce a quality of coke approximating that made at Connellsville. This has not been due so much to any fear that Connellsville coke will become scarce in the near future as to a desire to obtain control of coal lands that would produce a coke that could successfully enter into competition with the Connellsville article.

This research has been carried on in all parts of the country, but, with the exception of a very limited number of fields, none has been found which produced a coke that answered all the requirements of furnace men who have been smelting iron with the Connellsville article.

Since West Virginia contains probably the greatest area of high-grade coal land of any State in the Union, it would seem that the first search would be made in that State. A peculiar do-nothing and slow-going

policy that pervaded the "Little Mountain State" up till a few years ago caused her to be almost entirely overlooked, while seekers after coking coal were searching in Tennessee, Alabama, Ohio, Kentucky, Illinois and Indiana. Finally attention was directed to West Virginia, and experiments were made with coal found in the Fairmont region and in the lower Kanawha valley. Both of these coals were found to make very nice, clean and good-looking coke, but they were lacking in the structural strength necessary to bear up the burden of a heavy blast furnace. Both were good foundry cokes and brought as good a price in the market for that purpose as any other offered. A number of experiments have been made, especially in the Fairmont region, looking to the discovery of a means for attaining greater structural strength. Many plans have been tried, but as yet none of them have proven entirely successful.

There are two other sections in West Virginia, however, where coal is found that will make coke so nearly equal to the Connellsville article in quality that it proves very satisfactory to furnace men and is an acknowledged competitor in the market. These are the Flat Top and New River regions, although both are practically one and the same. The Flat Top region has been producing very considerable amounts of coke recently, and the building of the Norfolk & Western Railroad to a western connection and the securing by it of favorable arrangements for eastern shipments have been very largely the outcome of the demand for and possibilities of Flat Top coke and coal.

The New River region, or rather that part of it which has been the most extensively worked, lies in Fayette, Raleigh and Summers counties, W. Va. It is traversed by but one railroad, and that is the Chesapeake & Ohio. There has been a very considerable development of the coal industry in the section, but coking has not been so extensively carried on. Enough has been done, however, to prove, with a satisfactory degree of definiteness, that the New River coke is nearly, if not quite, the peer of the Connellsville product. Those chiefly interested in the management of the Chesapeake & Ohio road,

that is, the Vanderbilts, have seen for some time the possibility of developing along that line a great coking industry which, if pushed to its fullness, would soon become a rival of the Pennsylvania region. The preliminary preparations were begun over a year ago and have been pushed with more or less industry ever since. The first move was the general improvement of the Chesapeake & Ohio line, the double-tracking of a good part of the road, and the building of extensions into new territory where the best coking coal was to be found. These latter plans have been carried forward with considerable energy lately and the whole plan is becoming rapidly apparent. An arrangement has been entered into whereby the Kanawha & Michigan road, which occupies the opposite bank of the Kanawha river from its mouth to Malden, Kanawha county, is to be extended to the mouth of Gauley river, in Fayette county, where by means of a bridge the two roads will be connected. This work is now well under way and is being pushed with all possible haste. A branch line is being built up Twenty Mile creek to reach certain valuable land held in that section. The Chesapeake & Ohio people are also building a railroad up Loup creek from Riverview to Thurmond station. The contract has been let for twelve miles of this road, and will be extended to the head of Loup creek, thence through the mountains on the six-foot vein of coking coal to Piney river, thence up Piney river to a point where the Flat Top and Pocahontas coking coal is met with.

The latest transaction looking to a consummation of all these plans was the recent purchase by Messrs. Drexel, Morgan & Co. of the property known as the McKell coal lands in Fayette county. This tract includes about 23,000 acres of the finest New River coal, and cost the purchasers \$34.78 an acre, or in round numbers \$800,000. Messrs. Drexel, Morgan & Co., are known, or at least supposed by all those connected with the deal, to be buying for the Vanderbilts, and it has been given out that as soon as the branch up Loup creek can be completed mines will be opened and the largest coking plant outside the Connellsville region will be put into operation.

Drexel, Morgan & Co. own 40,000 acres of what is known as the Pocahontas vein of coal in the Piney river region, and it is to develop this that the new Loup creek branch is extended beyond the McKell lands.

The connection of the Kanawha & Michigan and the Chesapeake & Ohio Railroads at the mouth of Gauley river gives this new coking field a splendid outlet to the West and Northwest by way of Toledo and connecting roads from that point, or by way of the lakes. The Chesapeake & Ohio road has its own connections to the East and toward the South and Southwest, which, all taken together, insure for the product of the New River region a first-class distribution into all sections of the country that are reached by Connellsville.

It will probably be the big end of a year before a great deal in the way of practical coke production can be attained, but with the advantages of quality and distributing routes which it will possess, there is no good reason for believing that it will not soon become a strong competitor of Connellsville coke.

Another matter worthy of consideration in connection with the purchases made by Drexel, Morgan & Co. is the price they paid. The lands for which they gave \$34.78 an acre changed hands a very few years ago at considerably less than half that sum. The increase is hardly as great as has been seen in lands in some other sections of West Virginia, but it will be considered remarkable by those not fully acquainted with the rapid development of that State's resources in the past few years.

Coal Developments About Clarksburg, W. Va.

Another fine large tract of West Virginia coal land last week passed into the hands of those who will develop it to its greatest usefulness. In this instance, as has been the case frequently before, the capital comes from Pennsylvania, and not only from Pennsylvania, but from Connellsville and Uniontown, the very heart of the Keystone State's coal and coke-producing territory. To have intimated a few years ago that a Southern State would soon be able to wrest the laurels from Connellsville, where coke-making was the test of the tourney, would have been equivalent to applying for admission to an asylum for harmless enthusiasts. But things are changing, as was shown by the purchase of a big block of the New River field by the Chesapeake & Ohio people.

This latest sale is of coal land in the neighborhood of Clarksburg, Harrison county, W. Va. The tract is not so large, for the rapid development that has been going on in and about the Marion county region, of which this is a part, has left few large tracts in the hands of others than coal and coke producers. Col. Ben Wilson and Smith, Brown & Co., of Clarksburg, held the land on speculation and placed it in the hands of John S. Douglass, of Uniontown, Pa., to sell. The tract consisted of 2300 acres, underlaid with gas, steam and coking coal and splendidly located with regard to topography and shipping facilities. The names of the purchasers or the price have not been made public, but Mr. Douglass has disposed of the land in a lump with the only proviso that the titles shall prove clear. It has been stated that the buyers are already engaged in the coal business and the price is known to be large enough to compel the purchasers to develop it at once. Attorneys have commenced an investigation as to the boundaries and titles.

The rapid development of the coal industry in the immediate vicinity of Clarksburg is one of the really remarkable indications of Southern progress. Nearly all of it is due to the building of the West Virginia & Pittsburgh Railroad, although the region was traversed by the Parkersburg branch of the Baltimore & Ohio before the advent of Senator Camden's new enterprise. This new road was begun less than three years ago, and was opened for traffic throughout its length only a few months since. In the time that has elapsed since its beginning, Clarksburg has grown to be one of the leading coal centers of West Virginia. There are now no fewer than ten companies which have their headquarters in the town and their mines in the immediate vicinity. Most of these concerns are making coke as well as shipping coal, for the coal found there makes a very fine quality of coke.

Among the new concerns that have not been previously mentioned in this paper is the Clark Coal & Coke Co., which recently opened a working at Shinnston, on the West Virginia & Pittsburgh Railroad. Its coal shipments now amount to twenty carloads a day, and the company has built a string of coke ovens to consume such of its product as is not marketable. The Howard Coal & Coke Co. is managed by Mr. John Temple, and is owned chiefly by Baltimore capitalists. Its product is being increased from month to month, and is now quite heavy. The Despard mines are also located near Clarksburg, and are also making heavy shipments, mostly to the Western markets. The West Fork Coal & Coke Co., at Farnum, six and a-half miles from Clarksburg, produced its first coal last February, and now has 200 men at work getting out 500 tons a day, besides supplying raw material for a block of forty coke ovens, which number is soon to be increased. This company is under

the management of Charles M. Shanks, and the principal owners are R. L. Martin and Paul Farnum, of Philadelphia. The company has 700 acres of land which produces first-class coke. At Glen Falls, four miles from Clarksburg, a company of Shamokin (Pa.) coal operators have opened a mine which is under the management of Mr. Robert Moore. The company owns 350 acres of coal, and is getting down to work nicely. Their plant is not completed yet, but it will include a big block of coke ovens and a modern and improved colliery. The Briar Hill Coal & Coke Co. has 200 acres of coal adjoining the West Fork Company's land, mentioned above, and has driven an entry about fifty yards from the mouth of the West Fork mine. This company has been in operation since last May, and its product is very well introduced considering the time it has been on the market. This company has added a plant of twenty-five coke ovens, which will be lighted and put in operation about the first of January.

The Morris Gas Coal & Coke Co. is one of the most extensive in the region, and has three mines in operation—two almost in Clarksburg, and another at Mt. Clare, about four miles up the West Virginia & Pittsburgh road. The officers of the company are: A. G. Morris, of Tyrone, Pa., president; T. Moore Jackson, of Clarksburg, secretary and treasurer, and John Whitehead, formerly of Huntingdon, Pa., general manager. The company employs 350 men, which number is being increased. It has 1000 acres of land and a mine opening on each of the three railroads cutting the field, insuring the best of shipping facilities. A number of coke ovens will be added to the plant early in 1893, the arrangements for their construction having been made. About six weeks ago a standard-gage railroad connecting the Fall Run mine of this company with the main line of the railroad was completed.

A few months ago Pennsylvania capital was invested in two good-sized blocks of coal at Gypsy Grove and Enterprise, and it is now stated that mines will be opened at both points early in 1893.

Every mine in the region is working up to capacity and shipping its product as fast as mined, though in the past there has been loud complaint about the inability of the railroads to furnish cars. This will probably be remedied, as President Mayer, of the Baltimore & Ohio, which practically operates the road, made a tour of the region a few weeks ago and promised to take immediate measures to relieve the trouble. It is confidently expected that the coming year will see as great improvements in this region as the one just ending.

Coal and Coke Notes.

A COKE plant is soon to be constructed at Chickamauga, Ga., for the Durham coal mines.

THE output of coal and coke at Blocton, Ala., during the present month is unprecedented, and that of November exceeded the previous month by 14,000 tons. The immense coal washer is compelled to run day and night in order to supply the ovens with coking coal.

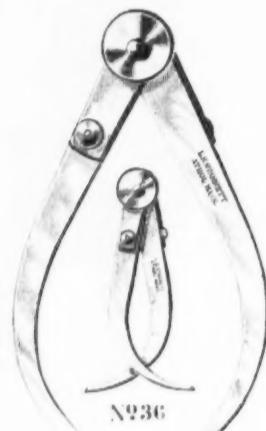
The Virginia & Alabama Coal Co. will make extensive improvements at its Coal Valley (Ala.) coal mines soon. The company will put in new tipplers and screens, and will place mining machines in the mines. A large number of new buildings will be erected and the output of the mines materially increased.

THE exports of coal from the port of Norfolk, Va., from January 1, 1892, inclusive, as cleared by William Lamb & Co., agents at Lambert's Point, is as follows: Foreign exports 6004 tons and coastwise 38,076 tons. Total for the week ending December 22, 1892, 44,080, and the grand total to December 22, 1892, 1,603,340 tons.

MECHANICAL.

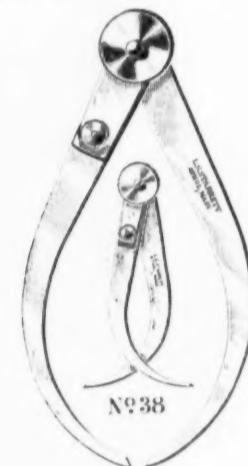
Starrett's Machinists' Tools.

In these days of accurate machine work accurate tools are a necessity, and no manufacturer can afford to allow his employees to use old or inaccurate ones. Calipers



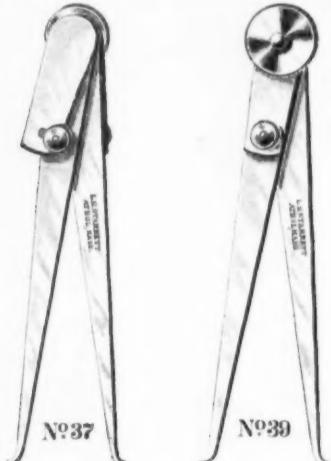
STARRETT'S CALIPERS.

are among the most important tools a machinist can use, and upon their accuracy and his delicacy of touch depend the quality of his work. L. S. Starrett, of Athol, Mass., who is well known as a maker of fine and accurate tools, has re-



STARRETT'S CALIPERS.

cently placed on the market the calipers shown in the accompanying illustrations, Nos. 36 and 38 are outside tools, simple, light and reliable. By passing the points they may, of course, be used for inside work. These can be instantly adjusted to

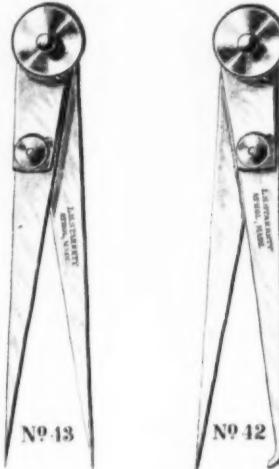


STARRETT'S CALIPERS.

their full extent and as quickly locked firm at the joint. The joint is a new design made to supersede the old style firm joint and also the lock joint with split leg adjustment formerly made.

The improvement consists first in a socket joint made tapering, and locked or released by a partial turn of the knurled disc draw-

ing it together. A spring washer under the disc maintains an easy friction in the joint when unlocked. In the under side of short arm is a slot containing a stiff spring. Riveted into the middle leg and projecting through an opening in the arm is a threaded stud on which is a knurled nut having a



STARRETT'S CALIPERS.

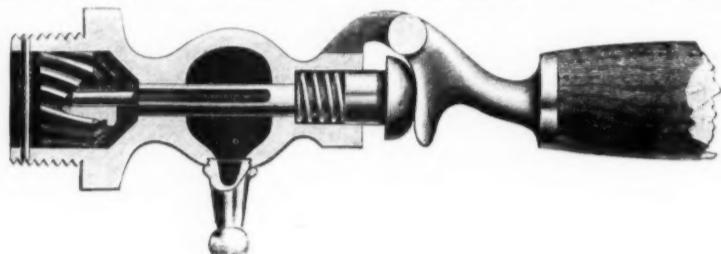
beveled hub; this bears against a cone in the arm; the action of the spring holding them together turning the nut, presses them apart and adjusts the leg while the joint is locked. The spring taking up all backlash, the legs are firm.

No. 36 has a further improvement, in

ment. They are light, stiff and have large capacity, and, owing to their construction, can be instantly opened, closed and locked. The points are well tempered and carefully adjusted. The outside and inside calipers are made in sizes from four to twenty-four inches; the hermaphrodite calipers six to ten inch, and the dividers in two sizes, six and eight inches.

Heavy Slab Miller.

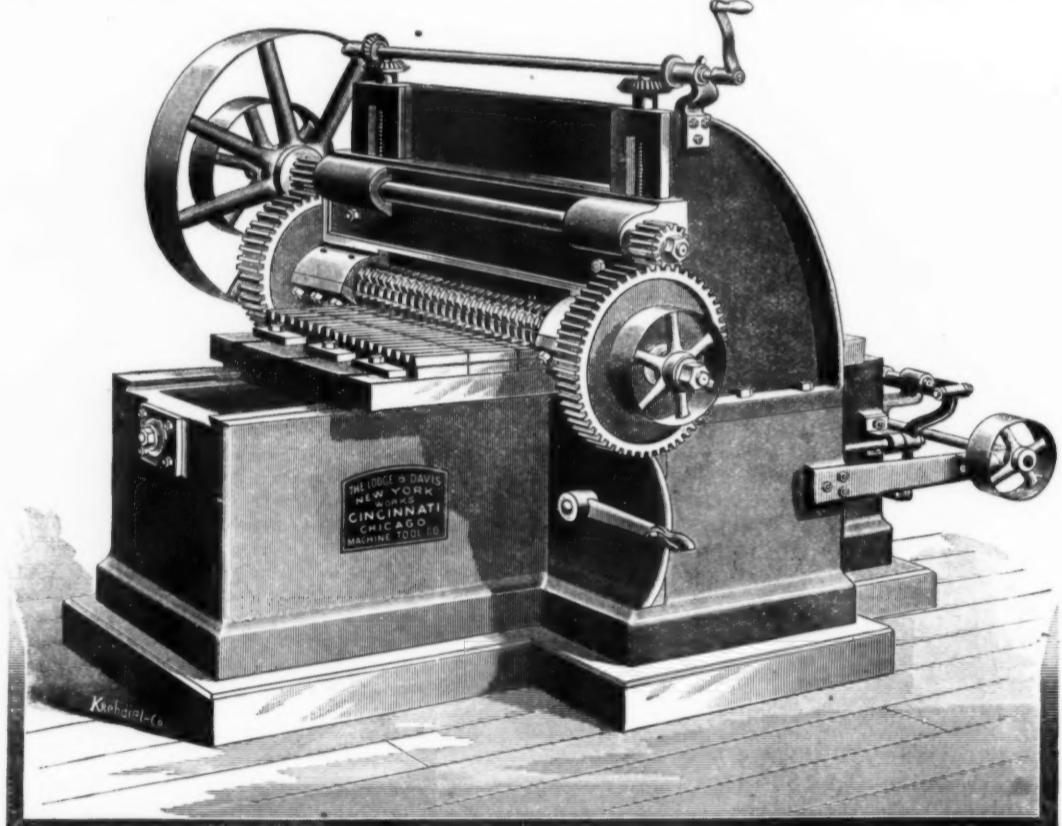
The accompanying illustration is of a heavy slab miller recently designed and built by the Lodge & Davis Machine Tool



THE ASHLEY SELF-GRINDING GAUGE COCK.

Co., of Cincinnati, Ohio. This machine is intended for heavy surface milling, and has a capacity of taking thirty-eight inches between the housings, a platen sixty inches in length and eleven inches from the top of the platen to the centre of the cuttershaft. The machine is very heavy and rests directly upon the foundation. The cutter-shaft is driven from both sides to avoid

many years. The advantages of these gauge cocks are: 1. They never leak, 2. They can be tried instantly, 3. They regrind the valve slightly each time they are tried, 4. They are made of the best steam metal and in the best possible manner, 5. They can be used on a high boiler without climbing up to them by simply pulling the wire, 6. They are handsome



HEAVY SLAB MILLER.

that one arm may be freed to pass over projections and afterward dropped into place without losing the size caliper. This is done by loosening the nut, binding one arm to the auxiliary leaf and swinging it out or in (while the joint is locked) to clear the obstruction, then moving it back against a stop, where it will show the exact size measured.

Nos. 37 and 39 are inside calipers, made after the same pattern as those just described, No. 37 having the lock joint for transferring.

No. 42 is an hermaphrodite caliper with the improved lock joint and sensitive adjustment similar to that in 36 and 37. The dividers shown in No. 43 also have this lock joint attachment and sensitive adjust-

ment, and can be easily removed for changing cutters by taking off the caps of the bearings. These caps are placed at such an angle that the pressure of the cuttershaft bears against the solid metal of the journals.

The platen has a gibbed, dovetailed bearing, and is fed by a heavy screw placed on the inside of the bed. It is also provided with a quick return motion, operated by the handle shown on the right-hand side of the cut. The machine has enough power to finish three pitch racks thirty inches long in one cut, which are shown on the illustration. The machine weighs 6500 pounds.

THE RISING FAWN (Ga.) furnace will likely blow in about January 1.

in design and reasonable in price. These gauge cocks are manufactured by the Ashley Engineering Co., 156 Liberty street, New York city.

Automatic High-Speed Engine and Boiler.

An engine which needs no attention, occupies but little space and is perfectly safe in operation is invaluable for those who wish a small amount of power and are not so located as to be able to secure it conveniently from outside sources. Even when this could be done, it is oftentimes more convenient and less expensive to have the power in the place where it can be controlled, started or stopped as the work requires. For such purposes the

compact little engine and boiler shown in the accompanying illustration are particularly well adapted.

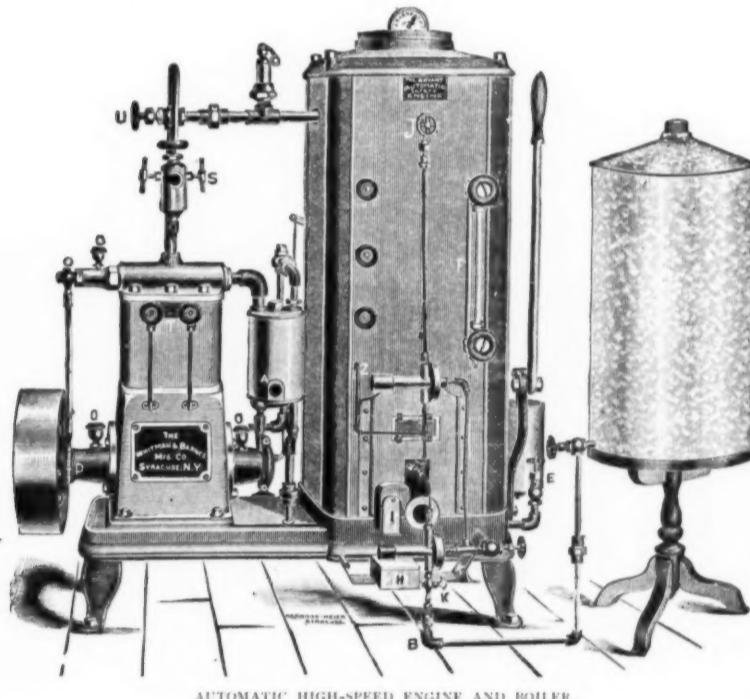
The engine is of the upright, double cylinder, single-acting type. The cylinders are placed directly over the centre of the driving shaft. Across the top of the cylinder is the balanced rocking valve, with extra long and large wearing surface which has no stuffing box, being the only engine made with this improvement; the box of the valve forms the top cylinder heads. The construction of the valve is such that each cylinder has quick admission and release of steam, making the action of the governor extremely sensitive to the slightest change in the load. The pistons are one and a-half times the length of the stroke, thus they form the guides. Two steam rings, Bryant's improved, are placed above the wrist pins. The wrist pins are case-hardened steel, and are placed a little below the centre of piston. The connecting rods are made of extra quality of material, being furnished with bronze bearings at each end, which makes their durability treble that of a similar make of engine, and in case they become worn out new ones can be put in at much less expense than to buy new connecting rods. The crank-shaft is made of steel,

the cylinder where they come in contact with the pistons.

By this device of lubrication, the oil once placed within the crank case cannot escape; it is used over and over; consequently the waste of oil is unknown. The eccentric connection and end of valve stem are the only parts that are not automatically oiled while the engine is in motion.

The boiler is made in sections and of greatly improved construction, giving it quick and free steaming capacity. Each boiler is tested to several hundred pounds pressure per square inch, and all parts showing any signs of weakness are thrown out. Its rapid circulation places it much in advance of former styles for fuel economy, which is an important consideration. The boiler has two jackets—one of heavy sheet iron next to the boiler, and an outside one of Russia iron of high finish.

Water is supplied by a pump worked directly by the engine, which forces the feed water through a coil of pipe which is heated nearly or quite to boiling point by exhaust steam, thus saving fuel and danger of straining the boiler by pumping in cold water. The pump is controlled by an attachment upon the boiler that keeps the desired amount of water in the boiler at all times. All sediment or dirty water is de-



AUTOMATIC HIGH-SPEED ENGINE AND BOILER.

and is ample in dimensions for the horse-power intended. The main bearings are two and a-half times "in length" the diameter of the crank-shaft, and are bushed with bronze that can be replaced when worn out; these bearings are so constructed that the oil works its way to the outer end of box and then it leaves the shaft and returns to the base of crank-case.

The driving pulley is of cast iron, lathe finished all over and perfectly balanced. Within this wheel is placed Bryant's improved governor, which is the only automatic governor, being positive in its action and especially adapted to high-speed engines where an even speed is required. It is claimed for this governor that it is the most simple, has the least friction (owing to having no quadrant), and contains the least number of pieces of any governor invented. It is so arranged that the speed of the engine can be increased or decreased in half a minute of time.

The crank case forming the base of the cylinder contains a mixture of oil and water, in which the cranks dip at every revolution; the high rate of speed throws the oil and water to every point inside the case, thoroughly lubricating all working parts within, including the lower end of

the cylinder where they come in contact with the pistons.

The fuel used is kerosene oil, which is furnished to the fire in the form of a spray. This is done by means of an atomizer controlled by an automatic fire regulator which cuts off the supply of oil when the steam has reached the desired pressure. These engines are made by the Whitman & Barnes Manufacturing Co., of Akron, Ohio; Canton, Ohio; Syracuse, N. Y., and St. Catharines, Ontario, under the Bryant patents. At present, one and two horse-power engine and boiler combined or independent engines are made, but shortly three and four horse-power sizes will also be produced.

THE LAKE HANCOCK PHOSPHATE CO., near Bartow, Fla., launched the barge for its big dredge last week. The company is pushing work vigorously, and will soon commence to operate extensively.

MESSRS. N. B. BORDEN & CO., who are extensively engaged in the phosphate industry, and representing C. A. & H. Nichols, of Mincing Lane, London, England, report the shipments of phosphate from Fernandina, Fla., for the month of November 13,688 tons, and for December 6320 tons, and the total shipments for 1892 to December 23 at 125,947 tons.

PHOSPHATES.

Increasing Phosphate Shipments at Brunswick.

The shipments of phosphate at Savannah, Ga., have been exceedingly light during the past six months, while there has been a large increase at Brunswick, Ga. The phosphate operators at Savannah are somewhat excited over the fact, and as the two points are about the same distance from points of production in Florida, there is considerable interest felt to discover why their receipts should be so much less than those of Brunswick. Savannah certainly possesses many advantages, however, in rail and shipping facilities, and her receipts of phosphate should likely show up to better advantage. The Savannah *News*, in commenting upon this difference in shipments at the two ports, says: "Inquiry was made of several shippers and brokers upon this subject yesterday. The charge has been made that Savannah's ship brokers were not sufficiently enterprising to compete with their brethren in Brunswick at the cost of an occasional reduction of rates. This charge was indignantly repelled, and it was plainly brought out that Savannah ship brokers frequently make cargoes at a loss to themselves, though they are not in the business merely because they like it. The brokers agreed in stating the fault was not with the shippers, but with the railroads.

"The ocean rates from both ports are the same," said a broker, "and we will undertake to provide ships for as many thousands of tons of phosphate as the railroads will bring here. We have lost the loading of several ships from this port because the railroads would not meet the rates at other points."

"Another broker said, while the freight rates to both ports are the same, he thinks the Brunswick shippers gain an advantage in a rebate on their terminal charges.

"The terminal charges at Brunswick are controlled by the Brunswick Terminal Co., he said, while the terminal charges at Savannah are controlled by the railroads. 'The Plant people,' he said, 'have been especially stiff in their phosphate rates, even when it has been shown them that their competitors were cutting under the established rates. They do not want to believe such is the case. This is undoubtedly being done, however.'

"It was generally said that the Plant people could bring the phosphate to Savannah, if they were so inclined, but they did not seem inclined to do so. The fact is that with no apparent difference in either rail or ocean rates, Brunswick is getting the phosphate and Savannah is not.

"The brokers said the situation might improve with the completion of the Florida Central & Peninsular Railroad to Savannah, when there would be competition."

Phosphate Markets.

OFFICE MANUFACTURERS' RECORD, BALTIMORE, December 29.

The phosphate market here ruled quiet during the week, owing to the occurrence of Christmas holidays, and the volume of business very light, with no transactions of any note reported. The arrivals during the week were the schooner A. Denike, from Charleston, S. C., with 580 tons of rock, and the Vanleer Black, with 1000 tons, from Bull river, S. C. A recharter is reported of schooner Lida J. Lewis, rock from Charleston, S. C., to Baltimore, on private terms. The list of values is very steady for phosphate rock for near delivery, but easy for future. We quote as follows: Ashley river \$4.75 and Charleston \$5.00, and for distant future delivery \$3.50 to \$3.75 for 50 to 55 per cent. product. River rock is firm at \$4.75 f. o. b. for 58 to 60 per cent. product. Florida rock is also firmer at \$4.00 to \$4.75 for Charlotte Harbor and

Tampa 60 to 70 per cent. product. Florida hard rock, 75 to 80 per cent., is steady at \$7.50 f. o. b. Fernandina. We quote as follows:

Phosphate rock f. o. b. Charleston.....	\$4 75	65	00
" " " Peace river.....	4 50	64	75
" " " Baltimore.....	6 25	67	00
" " (ground).....	8 75	69	00

The market for fertilizer ingredients is very firm, with a good demand and stocks rather light. We quote dried blood 2.30 to 2.35 f. o. b.; tankage 9 1/2 to 10 per cent., \$23.00 to \$23.50 per ton, and 7 to 8 per cent. at \$19.00 to \$20.00 per ton; concentrated 2.10 to 2.15, and hoof-meal 2.10 to 2.15. Fish is scarce, with a very light offering except ground, which is held at \$35.00 to \$37.50 per ton. In manufactured goods dissolved South Carolina or acid phosphate 12 to 15 per cent. is quoted at \$9.00 to \$9.50, as to quality. Concentrated superphosphate 18 to 20 per cent. is steady at 75 cents a unit; 30 to 35 per cent. at 85 cents, and 40 to 45 per cent. at 90 cents.

CHARLESTON, S. C., December 27.

In phosphate circles there has been very little done during the week, the occurrence of the holidays having restricted business to a great extent. The general situation has not materially changed during the week, and values continue about steady. The volume of business for the week includes shipments per schooner D. K. Baker with 736 tons phosphate rock for New York, and schooner B. F. Lee with 620 tons for Baltimore. The market closes steady at \$3.75 to \$4.00 for crude rock f. o. b., \$4.75 to \$5.00 for hot air dried and \$7.00 to \$7.50 for ground rock. In freights there is a fair demand for suitable vessels, and the current rates are \$2.25 Ashley river to New York, \$1.90 to Richmond, Va., and \$1.80 for Baltimore.

The comparative exports of crude phosphate rock and ground from the port of Charleston from September 1, 1892, to December 23, 1892, and for the same period in 1891 were as follows:

Destination.	1892-93.		1891-92.	
	Crude.	Ground	Crude.	Ground
Baltimore.....	14,420	.....	16,911	.....
Philadelphia.....	6,546	.....	4,725	.....
Boston.....	.....	.....	.....	.....
Elizabethport.....	.....	.....	.....	.....
Wilmington, Del.....	1,529	.....	600	741
Barren Is., N. Y.....	3,418	1,076	1,085	688
New York.....	3,418	2,300	.....	.....
Mantua creek.....	3,410	.....	.....	.....
Weymouth.....	4,380	.....	4,810	.....
Richmond.....	3,897	.....	3,151	.....
Seaford, Del.....	666	.....	600	.....
Newtown creek, N. J.....	665	.....	1,078	.....
Wilmington, N. C.....	665	.....	450	.....
Welsh Point.....	.....	.....	300	.....
Orient, L. I.....	2,790	.....	2,490	309
Other ports.....	.....	.....	.....	.....
Total exports.....	39,613	1,076	38,500	3,729
Foreign ports.....	175	.....	392	.....
Grand totals.....	39,788	1,076	38,592	3,729

FERTILIZERS.

The fertilizer market is firm, with a good demand. Acid phosphate in bulk is quoted at \$9.50 to \$9.75, and inspected, in bags, at \$11.25. Ammoniated inspected is held at \$18.00 to \$18.50 for 2 1/2 per cent., \$17.00 to \$17.50 for 2 per cent. and \$16.00 to \$16.50 for 1 per cent. for future delivery.

Phosphate and Fertilizer Notes.

THE BRUNSWICK TERMINAL CO., of Brunswick, Ga., cleared the British steamship *Strathspey* last week, and among her cargo was 1000 tons of phosphate rock.

THE BELLEVUE PHOSPHATE CO., in Marion county, Fla., have lately received large orders from Durham, in South Africa, and also from Biskra, in Algeria.

THE BLUE RIVER PHOSPHATE CO., whose mines are near Luraville, Fla., are now operating nearly twenty-four miles of railroad running from the mines to Ellaville, over which they have shipped during the past month over 1100 tons of rock, or fifty-six carloads. They now have on hand some 600 tons of rock ready for shipment.

LUMBER.

[A complete record of new mills and building operations in the South will be found in the Construction Department, on page 450.]

Savannah is the Chief Atlantic Lumber Port.

By Col. L. W. Avery.

From September 1, 1891, to September 1, 1892, Savannah shipped 140,243,603 feet of lumber, an increase of 15,000,000 feet over the previous year, or 12 per cent. growth of her timber trade in twelve months.

These great figures demonstrate the importance and development of Savannah's lumber business.

Tributary to Savannah are the large cypress and live oak forests of the coast and the vast yellow pine stretches of the interior, which, penetrated by railroads and dotted with powerful saw mills, furnish her great and growing lumber trade.

In 1877 Savannah's lumber business amounted to only 47,807,261 feet, of \$500,000 in value, and has risen to \$1,532,000.

The growth in three years was as follows:

	Feet.
1889-90.....	107,371,052
1890-91.....	125,920,342
1891-92.....	140,243,603

Of the 140,243,603 feet in 1891-92 there were 126,215,442 shipped coastwise and 14,028,161 feet foreign, and of the coastwise shipments 109,523,472 were shipped by sailing vessels and 16,691,970 feet by steamers. The coastwise shipments grew from 105,366,438 feet in 1890-91 to 126,215,442 feet in 1891-92.

The coastwise shipments were to twenty-two ports.

	1890-91. feet.	1891-92. feet.
New York.....	34,663,276	37,616,958
Baltimore.....	20,765,769	24,186,727
Philadelphia.....	16,665,290	24,422,112
Boston.....	9,755,629	4,613,643
Portland.....	2,040,894	3,748,611
Newport News.....	1,450,092	3,668,946
Wilmington.....	2,373,534	2,590,386
Perth Amboy.....	1,811,560	2,091,142

The foreign shipments were to twenty-three ports mainly, in the following order as to magnitude:

	1890-91. feet.	1891-92. feet.
Buenos Ayres.....	1,660,195	3,054,981
Santiago de Cuba.....	2,735,912	1,163,628
Valencia.....	1,562,510	1,831,577
Oporto.....	2,127,325	3,441,626

Spain and the Argentine Confederation take the largest shipments.

In the last six months of 1891-92 Baltimore took more lumber than any other port, getting almost a third of Savannah's coastwise shipments—Baltimore and New York exporting 60 per cent. Only 12 per cent. went to foreign ports.

From January to July, 1892, shingles were shipped as follows:

New York.....	4,619,225
Philadelphia.....	1,335,759
Boston.....	315,690

Among the lumber shipments were large quantities of cedar logs, crossties, staves and laths, the crossties alone amounting to 5,000,000 feet.

The superior commercial facilities and banking advantages of Savannah, strengthened by her better and more railroad lines, and by the certainty of her deep water of twenty-six feet, with the lower freights on large than small vessels due to deep water, make her supremacy in the lumber trade inevitable and insure the steady growth of this vast business.

And the thousands of millions of timber in the territory tributary to Savannah guarantee the continuation of this prodigious industry into the indefinite future.

The railroads are giving increased facilities for carrying promptly, while the tonnage for this business is without limit. The

four new railways built and building will open up new territory to Savannah, each line furnishing new mills.

Savannah's lumber prospects are great.

Plans for Excelsior Mills.

In presenting a plan of an excelsior mill it is not my object, nor is it necessary, to discuss the subject of the framework or the size and shape of the building, as there are several styles of buildings that can be successfully converted into an excelsior mill. However, there is one point that is very essential to its successful operation, and that is a substantial and solid foundation for the machine to set on, as a pitman motion of 20-inch stroke or more, running at 200 strokes per minute, will test the solidity of a foundation to its uttermost. I speak of a pitman motion, as I believe it is the only motion which can be used with a view to economy and success, although there are several rotary machines in use at the present time.

Now, then, in the arrangement of the machinery, we will begin at the motive power. If it be water-power (which I should invariably advise where "popple" is to be converted into excelsior), a horizontal wheel is advisable, as its shaft is in the right position to belt direct to the line shaft without the use of gears or quarter-turn belt. Ten single machines are all that should be put in for a set, and for convenience no more than twenty should be in one line; nor should the front or feeding side be closer than eight feet from wall, so as to allow room for a bench behind the operator, and also a car used for the purpose of conveying wood from the cut-off saw and distributing it along the bench behind the operator. But where more than two sets of machines are used the car should run between the two lines of machines, which should be at least twelve feet apart, with line shaft in the middle, but of course overhead.

It is best to place the cut-off saw and barking machine in a separate room from the excelsior machines, as the refuse would be liable to mingle with the excelsior, and where all of the machinery is on one floor the car can be run direct from saw-room to machines, although sometimes the saw-room can be placed under the machine floor and the wood brought up with an elevator; the latter method can be used in case the building is a three-story structure, but not large enough to admit it all on one floor.

In regard to press, the latter style of building is nicely adapted for a progressive lever press, as the pulleys, belting and gears can all be placed below the cutting-room and out of the way, leaving nothing above the floor except that part of the press which is needed to put in and take out a bale. In some cases it is advisable to elevate the excelsior with an endless belt to a room above, thereby making it handy to load below by sending the bales down a chute to a wagon or car, as the case may be. In this case it relieves the cutting floor of piles of baled excelsior, which, where room is deficient, is a big item.

The grinding-room, like the saw-room, should be separate from the cutting-room, as then it can be kept clean and free from excelsior, and the spurs are then not so liable to get lost in the excelsior, which is sometimes quite an annoyance; but it should be remembered that the grinding-room should always be on same floor as the cutting-room.

A great deal of guessing has been done on the amount of horse-power that it takes to drive an excelsior machine. Having had several years' experience in the construction of excelsior mills, I have come to the following conclusion: When an excelsior machine is making 200 revolutions per minute, it will stand a resistance of $6\frac{1}{4}$ horse-power; or, when it is doing its best, it is taking $6\frac{1}{4}$ horse-power to drive it, although there are times, when on a small

cut, that two horse-power is plenty to drive it. In building an excelsior mill I usually allow five horse-power to a machine, and find that it works admirably; five horse-power for a press, and ten for cut-off saw, as there are sometimes large cuts to make.

In conclusion, I would say that I will be pleased to furnish, to any one who desires it, a plan complete from foundation to top, of an excelsior mill to suit any locality and of any capacity, using steam or water.—S. H. Elwell, in the *Wood Worker*.

Southern Lumber Notes.

THE Aberdeen (N. C.) Lumber Co. is building a plant to dry and dress 50,000 to 75,000 feet of lumber daily, and will be ready to commence to ship by February. This company is composed of Messrs. A. W. Adam, of Aberdeen; W. G. Mauver, of Girardville, Pa., and R. A. Wagner, of Frackville, Pa. They will manufacture long-leaf North Carolina pine flooring, wainscoting and ceiling and cut bill stuff to order.

N. J. CLODFELTER, Crawfordsville, Ind., recently purchased a large tract of timber land on the St. Francis river, in Missouri, upon which he will at once commence cutting.

An extensive saw and planing mill plant is now in course of erection on the Birmingham Mineral Railroad, south of Woodstock, Ala.

THE Bella Grove planing mill at Velasco, Texas, is putting up ten barges for the Columbian Transportation Co. This mill has been running steadily with the exception of a few weeks stop to put in new machinery, and has orders enough on hand now to last sixty days.

H. T. NOEL's new box factory at Middlesborough, Ky., is completed and operations have commenced. About thirty hands are employed.

THE Robinson Land & Lumber Co. has about completed its extensive milling plant near Buckatunna, Miss., and will be ready to commence sawing by January 1. The mill contains the Filer & Stowell Co.'s outfit and Hill steam nigger. Its capacity is 100,000 feet daily. The Chickasaw & Jackson Railroad has been organized by the company to run from its mill to a connection with the New Orleans & Northeastern.

J. J. O'NEILL & SON's planing mill at Rome, Ga., will be continued in operation by a new company which is to be chartered by J. B. Hill, J. L. Camp and J. J. O'Neill. The above firm recently made an assignment.

DURING November the mill of the Peters Lumber Co. at Alco, Ala., cut 4,100,000 feet of lumber.

J. J. LACEY & CO., of Bluefield, W. Va., are at work rebuilding their recently burned saw mill. They will shortly be ready to resume operations with a fine equipment of machinery.

J. F. RANDOLPH, of Salem, W. Va., has about completed his new saw mill, built to replace the one burned recently, and operations will soon recommence.

MESSRS. DEAN & KING are building large circular saw mills at Bibbville, Bibb county, Ala. The site is in a fine belt of long-leaf yellow pine timber, and the plant is to cut 30,000 feet of lumber daily.

MESSRS. KRAMER BROS. & CO., of Elizabeth City, N. C., are rebuilding their saw mill on a large scale and improved plan.

MR. W. C. KELLY, of Plainfield, N. J., and his associates contemplate building a large saw mill plant at Carrabelle, Fla.

THE saw-mill men engaged in business along the line of the Cotton Belt Railroad held a meeting at Camden, Ark., on the 23d instant to discuss the question of short car service. Thirty-five mills, with a capacity of nearly 2,000,000 feet daily, were

represented. J. A. Freeman, of the Freeman Lumber Co., of Millville, Ark., acted as chairman. The result of the deliberations was the appointment of a committee to visit New York and confer with the Goulds. The mill men estimate that it will take over 1000 cars to relieve them of their stock and fill orders, many of which are from the World's Fair building contractors. Owing to the movement of the cotton crop cars are very scarce, and the lumber business is at a standstill. The committee have hopes of securing the service required.

THE sash, door and blind factory of Onley & Love, Jacksonville, Fla., was destroyed by fire last week. The machinery was valued at \$3500 and the building at \$500, with about \$1500 worth of stock. The building and machinery were insured.

THE Red Cypress Shingle Co., of Parkdale, Ark., was incorporated last week with a capital stock of \$5000. The officers are: J. B. York, president; D. G. Owen, vice-president, and C. J. Sanistag, secretary and treasurer.

THE Texas Tram & Lumber Co., of Beaumont, Texas, received an order on the 10th inst. for lumber and timber exceeding 1,000,000 feet. The prices obtained were considerably higher than those realized heretofore. The bulk of the order was for heavy timber, with a fair proportion of yard stock.

THE Hooks Lumber Co., one of the most substantial in Southeast Texas, has begun the construction of a tramroad to facilitate logging operations. Several miles of steel rails have been purchased, together with an engine and log cars. The company has also made many improvements in its extensive plant.

A NEW stave factory will soon be put in operation at Liberty, Texas, and it is stated that two saw mills will also be erected at an early day.

THE shingle mill of the Hon. H. C. Stringfellow, near Shreveport, La., was destroyed by fire on the 14th inst. The mill was one of the largest in the State and cost completed and equipped \$60,000. It was insured for \$20,000.

THE Gulf Coast Yellow Pine Export and Manufacturers' Association, at their meeting in Pensacola, Fla., on the 17th, decided that the price for timber shall be on the basis of $12\frac{1}{4}$ cents at Ferry Pass, near Pensacola, Fla. The owners of timber are pledged not to cut under that rate.

AT Barnum, Texas, lumber is in great demand and the Bowers and Stryker plants report a very large volume of business, orders being filled with difficulty.

MESSRS. MACCRADY & DUCETTE have commenced the erection of a new saw mill at Carroll Switch, near Woodville, Texas. The plant will have a cutting capacity of 35,000 feet daily.

THE Estabutchie (Miss.) Lumber Co. intends building a three-mile logging road in the near future to develop virgin timber.

W. C. ALBERTSON, of Moselle, Miss., is considerably improving his lumber plant. Two new boilers, two new dry-kilns, an electric-light plant and other machinery is being put in.

A FACT worthy of note is the foreign trade of the Ray Furniture Co., of Charleston, W. Va. Last week it received an order for two carloads of furniture to be shipped to Manchester, England, and in the past two months has sent several large consignments to the City of Mexico and to Cuba. The company's foreign trade is getting to be quite an item, and they contemplate cultivating it.

THE new saw mill of Allen & Williams at Corrigan, Texas, is now completed and is among the largest and best mills on the line of the Texas & Sabine Railway. It is two stories in height and 110x144 feet in length. It is complete in all its appoint-

shipments also to Mexico and South America. The shipments of hewn timber for the week were 5361 cubic feet, and since the 1st of September 592,134 cubic feet, and last year 436,106 cubic feet. Of sawn timber a foreign shipment to Cork aggregated 24,650 cubic feet, and one to Mexico 5160 cubic feet—total 30,140 cubic feet, and since September 1st 528,285 cubic feet, as against 215,258 last year. In the shingle market there is every evidence that the Mobile Shingle and Lumber Association will make a very long cut for the year. Their output now among the combined mills is about 1,000,000 per day, with a stock on hand of about 10,000,000. The Mobile Shingle & Manufacturing Co., which has a mill on Blakley Island, will build a new mill in the north part of the city at Three Mile creek, on the Louisville & Nashville Railroad, where they will put in a combination mill for shingles and lumber, with a shingle capacity of 150,000 feet per day. Commission men and others report the outlook for trade very satisfactory, and the new year will open with an active demand for lumber. The timber trade is fair, but present prospects, while not discouraging, might be much brighter.

Beaumont.

BEAUMONT, TEXAS, December 26.

The occurrence of the Christmas holidays has lessened somewhat the volume of business in lumber and timber, but nevertheless there is an active trade in progress. The orders have been quite numerous during the week, and among others the Texas Tram & Lumber Co. have just filled one for over a million feet of lumber and timber at prices slightly higher than usual. The Reliance and Beaumont Companies are also well supplied with orders and their stocks are ample for the demand. In the list of values there is considerable firmness, and prices generally are well maintained. The Beaumont *Journal* in its weekly review says of the market: "The demand for dealers' stocks, while still fairly good, has not been so active during the past three weeks as heretofore, due perhaps to the fact that retailers are running down their stocks preparatory to the annual inventory. The stocks at mill points not being excessive, no extra efforts are being made to sell." The demand at this point for shingles is not so urgent, and as there is very little dry stock on the market, the change has no serious effect at the moment. Values remain unchanged. The Beaumont Lumber Co. closed down on the 22d in order to make some improvements and add new machinery. The Texas Tram & Lumber Co. also closed down for improvements, which will be completed in the next fortnight. The Reliance mill has everything now in readiness and will commence operations about the 2d of January. Repairs and improvements will also be made in the Shingle mill of the Long Manufacturing Co. during the coming week. The outlook at present is very encouraging, and it is thought that the new year will inaugurate a spirited demand, and large volume of business.

WORK at the Dora coal mines near Dorcas, Va., has again been resumed after a short stoppage. A new vein has been opened, of good indications.

The Alabama-Connellsville Coal & Coke Co. will soon resume work at its mines, located at Connellsville, Ala., on a branch of the Birmingham Mineral Railroad. This property has been idle for some time.

WESTERN parties are negotiating for a large tract of coal land near Moundsville, W. Va., and if the deal is consummated extensive developments will follow.

THE Texas & Pacific Coal Co. is prospecting for coal near Palo Pinto, Texas, and if successful in finding same will open mines.

Progress of the World's Fair.

[From our own Correspondent.]

CHICAGO, December 24.

The proposition has recently been made that the World's Fair be kept open for two consecutive seasons instead of one. This is the natural result of the common feeling of regret that the splendid palaces which have already excited such admiration and which have cost such a vast expenditure should be torn down after six months' use. It has not developed what objection there may be to an extension of the fair period, but it seems to be the opinion among the exposition authorities that such action would be advantageous from almost every point of view, and several directors have expressed themselves unqualifiedly in favor of the plan. As far as the buildings are concerned the extension is perfectly feasible. While they have been erected as temporary structures, the foundations are sufficiently substantial to last for several years at least. While the matter has not been presented for definite action, it is not altogether improbable that the drift of public sentiment may compel the authorities to consider the question seriously.

* * *

The returns of a canvass made by the World's Fair Sunday Opening Association have recently been made public. The plan adopted by the committee in charge for securing an expression of opinion seems to have been quite fair. As a list of names the committee selected from Dun's reference book the first twenty-five names in the list of business men rated over \$1000—liquor dealers excepted—in forty cities having a population of less than 50,000, and from the same book the first ten names of business men of the same rating and with the same exception in all cities having a population of not less than 4000 nor more than 10,000. These gentlemen were asked to state whether they preferred an absolute closing of the gates on Sunday or whether they approved open gates with machinery shut down and merchandising prohibited. Of 2758 replies received 756 voted in favor of closed gates; the remainder, or 72½ per cent., favored the alternative proposition. The results have been tabulated in accordance with the percentages in States, and it appears that without exception a majority in every State voted for the open Sunday. The percentage in Alabama was 75 1-7 per cent., in Arkansas 78 1-5 per cent., Florida 60 per cent., Georgia 75 per cent., Maryland 80 per cent., Mississippi 71 1-4 per cent., North Carolina 64 per cent., South Carolina 72 1-7 per cent., Texas 74 1-2 per cent., West Virginia 83 1-4 per cent.

* * *

Manufacturers will be particularly interested in the announcement of the method of making the awards of medals and diplomas to exhibitors. The chairman of the committee which had this matter in charge recommended that instead of juries, individual judges should be appointed to distribute the coveted prizes, and the news has erroneously been circulated that the system had been finally adopted. While this plan has its advantages, especially in view of the fact that a written report was to be submitted in each case, still it is obvious that as an argument could be urged the fact that disappointed exhibitors would be afforded a better opportunity for alleging prejudice and partiality than by the ordinary jury method of award. It has now been decided to remodel this plan with the purpose of securing a combination of the jury and individual judge systems. It is proposed to organize a board of judges, to be divided into thirteen department committees, one for each exhibit's section. From each committee individual judges are to be assigned to specific exhibits. The judges will make written reports recommending awards, which will be laid

over to afford dissatisfied exhibitors to enter protests against the findings. At the end of the six days the reports will be taken up by the committee and disposed of by a majority vote. In the event of an appeal from any judge's report, the department or section committee must detail a jury of three or five of its own members and an expert to consider the matter. The expert's opinion is to be considered by this jury, and is to be made a part of its report, which, when acted upon by the committee, is to be final. The board of special experts is to consist of at least six members, one of whom is to be a woman. The judges will be selected from the United States and from abroad in proportion to the number of exhibits from each. The foreigners will probably be paid \$1000 each and the native judges \$600. The larger compensation of the former is to give a margin for traveling expenses. In order to carry out this programme Congress will be asked to appropriate \$700,000. * * *

The programme for the opening exercises which are to be held on May 1st is now about completed. An invitation will be extended to Mr. Cleveland, who will then be President, to make the formal address and to start the machinery. The programme as arranged includes only five numbers in addition to the music, as follows: Prayer, presentation of chiefs of departments, poem, address of the President of the United States, and the benediction. In all probability the poem will be written by Oliver Wendell Holmes. The exercises will be held in festival hall, which has a seating capacity of about 5000. About 1000 seats will be reserved for officers of the fair and invited guests, and the remainder will be sold at \$5.00 each. This sum will be necessary to defray the opening exercises, as the directors have refused to appropriate any money for this purpose.

* * *

General Groner, World's Fair commissioner from Virginia, was recently in Chicago and stated that the exhibit which his State would make would be one of the most interesting at the grounds. The most striking feature will be a reproduction of the home of Washington at Mount Vernon. There will also be shown a collection of Washington relics, which the commissioners have secured from many sources. The exhibit of war relics, it is said, will be unequalled by that of any other State. General Groner stated that Virginians were taking a great interest in the fair, and that they would attend in formidable numbers.

* * *

Alabama has fallen into line. A bill was introduced in the legislature, December 11, providing for the appointment of a commission and for the exhibit of State products. The measure appropriates the sum of \$25,000, but the condition is made that the money is to be used only in the event of the contribution of a like amount by private enterprise. If \$50,000 is raised in this way the governor will appoint two commissioners, and the third is to be selected by the private contributors to the fund.

* * *

One question is asked by every visitor at the grounds: Can the buildings be finished and the exhibits be installed at the date set for opening the exposition? Judging superficially, one would be inclined to answer the query in the negative. Yet such wonders have already been wrought that one hesitates to pronounce an opinion, but it is safe to say that no time is to be lost. This sentiment, in fact, is expressed by Director-General Davis in his recent report of progress. He urgently demands the immediate completion of the buildings, and states the necessity of hastening the work of installation. This sentence from his report is significant: "It was the intention that we

should have six months in which to install exhibits—none too long—and there is but little more than four months left for that purpose, and every day lost now in any department is a delay that cannot be reclaimed."

* * *

It is stated that about \$300,000,000 will represent the value of exhibits to be installed at the grounds, and it is said that it will be exceedingly difficult to secure insurance to cover this amount. At the present time \$5,000,000 is placed on the buildings and property of the exposition. It is unquestionably true that the demand for insurance will exceed the supply, and there are already demands that the government insure the exhibits. Of this there is, however, not the slightest likelihood.

Atlanta's Unusual Depot Facilities.

By Col. L. W. Avery.

Atlanta is not only the leading railroad centre of the South, but it is the only city in this section of equal size that gives to the traveling public the supreme convenience of a union depot into which all of her eleven lines of railway enter, located right in the business heart of the city and adjoining the chief hotels.

The convenience of such a common depot, saving time and money to business men and general travelers, requiring no hack fare to taverns or separate passenger depots as in other cities of equal or larger size, cannot be estimated, and has undoubtedly helped the progress of the place.

The freight depots are conveniently located, with large grounds and commodious buildings.

Atlanta is just about to have a valuable addition to its freight facilities that marks a striking step in her railway conveniences.

The Seaboard Air Line Railroad has purchased in the heart of the city at the cost of \$500,000 a tract of land lying 950 feet on the Western & Atlantic Railroad, running back into the city 220 feet. The track lies within three blocks of the union depot and the hotels, and will have a 50-foot street opened and paved on its south border.

The rest of the track will be covered by a four-story building of steel and fire brick, each floor containing three acres of space, of which the three upper stories will consist of seventy-eight storage warehouses, each 35 by 150 feet, aggregating nine acres of space, each warehouse having a front and back elevator. This location gives the same terminus to Eastern and Western lines of road.

The railroad will have sixty-four offices in the centre, to be used by the Seaboard and the Western & Atlantic roads.

The storage warehouses are to be rented to merchants at low rates, with the low insurance of fire-proof buildings and a free delivery of goods, which will be unshipped into elevators and carried into the stores.

The Seaboard Air Line has built a belt-line railroad around the city, connecting with all the leading railways entering Atlanta. The company will spend a million on the depot building. It will also have a yard three miles from the city where it joins the Western & Atlantic Railroad and where it can handle 1000 cars.

The belt line runs along Peachtree creek nearly its entire distance, where fine sites give unlimited water supply for factories, to which the railroad offers every facility to induce capital to locate plants there.

This huge depot is within a stone's throw of the postoffice on Marietta street, one of the finest streets in the city.

Mr. John H. Winder, the efficient superintendent of the Georgia, Carolina & Northern Railroad, and the president of the belt line, has accomplished all this work, and has charge of the affairs of the Seaboard Air Line in Atlanta.

Thus does Atlanta take another great step forward.

IRON MARKETS.

Philadelphia.

[From our own Correspondent.]

PHILADELPHIA, December 28.

The year draws to a close with the iron market in a far from satisfactory condition as viewed from the standpoint of the producers. While the past week has developed numerous inquiries for pig metal, buyers continue to make purchases for material only sufficient to meet immediate wants, postponing orders for future wants until after the beginning of the new year. Consumption has declined, owing to the stoppage of many establishments during the holidays, but it is expected that the demand will be the more urgent when these plants again resume work. Very few of the leading consumers have any considerable amount of pig iron in their yards, and as buying cannot be postponed indefinitely, the furnacemen look for increased business after the new year has fairly started.

The pig iron manufacturers of this section as a class cannot look back upon the past year as one of any great degree of prosperity. Prices were low in the opening months, but they gradually declined, with a slight stiffening during September and October, until the present time, and are now weak and unsettled, with no immediate prospects of improvement. The pressure of Southern competition has been severely felt by the furnaces in this vicinity, as many of the latter are not in a position to accept the low prices that are profitable to the works which enjoy the advantages of cheap raw materials and equitable freight rates. The increased use of steel and the close competition of the Western mills for Eastern business has also considerably narrowed the market for mill grades of pig iron for the furnaces here.

Quotations continue as last named for tidewater delivery or its equivalent, although sales are reported at slight concessions from these rates. For deliveries at points 100 miles west and south of here Southern iron is quoted at from twenty-five to forty cents below the prices in force here.

Standard Pa. No. 1 X..... \$13 4000 15 25
" " No. 2 X..... 14 0000 14 50
" " Forge..... 13 0000 13 50
Southern coke No. 1 foundry..... 14 2500 14 75
" " No. 2 "..... 13 5000 14 60
" " gray forge..... 13 0000 13 25

Wheeling.

[From our own Correspondent.]

WHEELING, W. Va., December 28.

Business in all lines is almost at a standstill, and pig-iron makers find themselves this week with but little to occupy their attention in the way of new business. Nearly all sales that will be made this year have been recorded, and those negotiations that refer to next year are still in abeyance. Notwithstanding the almost graveyard dullness that pervades business circles, there really does seem to be a more cheerful feeling in some quarters. This may be the result of good digestion at work on Christmas dinners—a sort of post-prandial contentment—but it is finding recuperation in the form of felicitous predictions from other sections. There is room to hope that the anti-Christmas dullness, which was a natural and to be expected condition, had a more depressing influence than was justified, and that things are not in such bad shape after all. While it is true that the consuming element rests for a week or two at this season, and that as a consequence the finishing mills are called upon for less to supply the aggregate demand, it should be remembered that everything, except the blast furnaces, are idle or nearly so during the same period. The furnace workmen and managers would rest a couple of weeks, too, if it were possible without such great expense, but they have to go on without intermission, and when other lines resume the furnaces will be found a little ahead. This is not a serious matter, how-

ever, and may prove a blessing by keeping furnaces idle that would go on if there appeared to be any chance for disposing of product. The possibility of more furnaces going on in January is the greatest menace to the pig-iron trade, though it is likely the little depression which began to show itself two weeks ago, and which is visible in some quarters yet, has had the effect of checking some of the ambitious ones.

A sale of Northern mill iron was made in this city today at \$12.40 for January or February delivery, and another good-sized order is under consideration, but will not probably be placed before next week. A block of foundry iron, comprising several carloads, was offered today at \$13.85 for No. 2 and \$13.35 for No. 3. This deal was not closed. The Ohio river is again closed to navigators, this time by the ice, and if the many predictions of a long, hard winter that are heard prove correct, Southern pig iron will not cut much of a figure here before spring. One millman made inquiries yesterday about Northern mill iron to supply his needs during January on account of the inability of his brokers to deliver Southern iron he had bought for that month.

Prices are quoted as follows:

No. 1 Northern mill irons.....	\$12 4000	12 50
No. 1 Southern mill irons.....	12 3500	12 50
No. 1 foundry.....	14 7500	14 85
No. 2 ".....	13 8500	13 90
No. 3 ".....	13 2500	13 35
Bessemer.....	13 7500	13 85

Chicago.

CHICAGO, December 24.

There is little of interest in the condition of the pig-iron market in this vicinity at the present time. There is a good deal of steady buying going on, but few contracts of any size are being placed. Southern coke furnaces are firm as to prices and deliveries and fewer concessions are being made. Northern coke furnaces, while not willing to concede anything in the way of price, are willing to sell for a year's deliveries at present prices. Lake Superior charcoals are inactive and prices unchanged.

We quote for cash f. o. b. Chicago:

Southern coke No. 1 foundry.....	\$13 2500	13 50
" " No. 2 foundry.....	13 0000	14 00
" " No. 2 soft.....	13 2500	13 75

ROGERS, BROWN & MERWIN.

St. Louis.

ST. LOUIS, December 24.

The general appearance of the iron business is one of extreme dullness, although there has been more inquiry during the past week than the preceding one. We consider the prospects for sales very good after the 1st of January, as a large number of the buyers have been holding off, waiting until they take their usual yearly inventory.

The railroads are sending out bids for next year's castings, and some buyers are waiting until these orders are placed before covering their wants for pig iron.

We quote for cash f. o. b. St. Louis:

Southern coke No. 1.....	\$14 5000	14 75
" " No. 2.....	13 7500	13 50
" " No. 3.....	12 7500	13 00
" " gray forge.....	12 2500	12 50
" " charcoal No. 1.....	16 0000	16 50
Missouri " " No. 1.....	14 5000	15 00
Ohio softeners.....	16 5000	17 00
Lake Superior car wheel.....	18 0000	18 25
Southern " ".....	18 5000	18 75
Frick's Connellsburg foundry coke.....	—00	5 65

ROGERS, BROWN & MEACHAM.

Cincinnati.

CINCINNATI, December 24.

The dullness of the past four weeks continues uninterrupted. It is estimated that new buying is at the rate of not over 25 per cent. of current consumption. Shipments go on in full volume, and there is every indication that foundries are using the iron as fast as received. No evidence of increased stocks in consumers' hands is visible. The natural inference is that buying must be taken up again early in January in measure proportionate to actual use of iron. It is undeniable that the temper of buyers

is adverse to making large contracts. It is quite likely that this temper will settle into the general policy, and that the buying will be from hand to mouth until the general situation, political and otherwise, is more clearly defined. Furnacemen are confident that there will be a demand for all they can put out, and at prices certainly not lower than those recently ruling. There are some who fully expect a further advance after the new year gets fairly started. The outcome clearly depends on the condition of general business throughout the country, and there is nothing the matter with it that anybody can discover. Very few foundries or even mills claim that their orders are running lower than the usual average at this season. In many cases they are running heavier.

We quote for cash f. o. b. cars Cincinnati:

Southern coke No. 1 foundry.....	\$13 7500	14 00
" " No. 2 foundry and		

No. 1 soft.....	12 5000	12 75
Hanging Rock coke No. 1.....	15 5000	16 00
" " charcoal No. 1.....	18 5000	19 50
Tennessee charcoal No. 1.....	16 0000	16 50
Jackson county stone coal No. 1.....	16 0000	16 50
Southern coke, gray forge.....	11 5000	11 75
" " mottled.....	11 0000	11 25
Standard Alabama car wheel.....	18 0000	19 00
Tennessee car wheel.....	17 0000	17 50
Lake Superior car wheel.....	17 5000	18 00

ROGERS, BROWN & CO.

Louisville.

LOUISVILLE, December 24.

The demand for iron continues fair, and leading furnaces hold prices firm. Consumers are not willing to buy for long deliveries, however, save when slight concessions can be obtained. Most of the orders are for prompt shipment and in small quantities. It is hoped that December will show a further decrease in stocks, and if that is the case furnaces look forward to the coming year with encouragement. Buyers as a class, however, feel that the market is weaker, and in many instances are emphatic in not being willing to purchase, believing that when the iron is actually needed better figures will be offered.

Silver grays are especially in demand, and there is also a strong inquiry for mottled. Car-wheel irons are quiet and prices remain unchanged.

We quote for cash f. o. b. cars Louisville:

Southern coke No. 1 foundry.....	\$13 2500	13 50
" " No. 2 ".....	13 0000	13 25
" " No. 3 ".....	11 5000	11 75
" " gray forge.....	11 2500	11 50
" " charcoal No. 1 foundry.....	15 0000	16 00
" " car wheel.....	17 5000	17 75

GEO. H. HULL & CO.

Southern Iron Notes.

THE Helena (Ala.) Rolling Mill Co. is reported as to reorganize and resume operations at its plant.

It is reported that Morris Adler, of Birmingham, and associates, who recently bought the Bessemer Rolling Mill, will put the plant in operation at an early day.

Col. F. NEMEGYER, of New York city, owner of the Irondale furnace, at Irondale, W. Va., is reported as to put the plant in operation soon.

L. A. BOGGS, of Clifton Forge, Va., secured some fair specimens of manganese and iron ores during a recent trip to Craig county. The specimens were found near Craig City and are in a section in which little or no development has been done. It is said that this region contains some excellent deposits of ores, and an effort will be made to examine them, with a view to development if found satisfactory.

C. F. & EUGENE ENSLEN and Buyck & Thomas, of Birmingham, Ala., have for some time been engaged in remodeling and improving the Henderson steel plant in that city. The work is now completed and the plant will commence operating. It is now controlled and will be operated by the Jefferson Steel Co.

A VEN of magnetic ore, pronounced free from titanium and low in phosphorus, has been discovered near Shell creek, in Carter county, Tenn., and is now being developed by the Iron King Mining & Milling Co. This company was organized last spring

with E. C. Cary as president; T. C. Tee-garden, general manager, and James Davis, boss miner.

A VEN of black oxide manganese, eight feet in thickness and of good quality, has been discovered on the property of Mr. J. M. Reynolds, in Talladega county, Ala., near Anniston.

A NEW company, represented by T. T. Hillman, of Birmingham, Ala., has purchased the Gadsden-Alabama Furnace Co.'s plant, including 1,400 acres of iron ore lands. The purchase price is said to be \$110,000, and the new concern will make extensive improvements and enlargements. It is understood that Messrs. Nixon Bros., of Attalla, Ala., who have been running the plant under lease for several months, will retain possession and continue operations.

THE Bessemer Mining Co. has been organized at Bessemer City, N. C., to succeed the Bessemer City Manufacturing Co. J. S. Carr, of Durham, was elected president; J. F. Eddy, of Bay City, Mich., vice-president, and E. T. Carrington, of Bay City, Mich., secretary and treasurer, and the following as directors: W. D. Rice, of Richmond, Va.; J. C. Rundlett, of Portland, Me.; J. A. Smith, of Bessemer City, and E. A. Cooley and Charles A. Eddy, of Bay City, together with the officers mentioned. The directors will meet this month and form plans for active mining on a large scale.

AT a meeting of the stockholders of the Cushman Iron Co., held last week, the following board of directors was elected: C. G. Cushman, James D. Lazell, John Bird, J. R. Collingwood, of Roanoke, and A. S. Bird, of Rockland, Me. The direct management of the company was placed in the hands of C. G. Cushman, president and manager; John Bird, vice-president and superintendent, and A. J. Coffin, secretary and treasurer.

WORK is progressing rapidly on the buildings for the wire-nail works to be established at Bridgeport, Ala., by T. T. Baxter, of West Dennis, Mass. This will be the first wire-nail plant established in the South.

WORK is progressing rapidly on the Watts furnaces at Middlesborough, Ky., and one of them may go into blast before January. Five cars of ore are being received daily at the plant, and on January 1st this will be increased to twenty cars. John B. Hall is furnishing the limestone.

NEW YORK and Roanoke capitalists have secured control of Braddes, Newman & Co.'s manganese mines near Luray, Va., and are now engaged in active developments.

MR. C. H. BROWN, president of the Knoxville (Tenn.) Car Wheel Co., which made an assignment last January, states that endeavors are being made for the reorganization of the concern. This plant is a very valuable one, and will resume operations early in 1893 if the reorganization is completed.

AT the meeting of the Embreeville (Tenn.) Land, Iron & Railway Co., recently held in London, Eng., the chairman stated that notwithstanding the great depression in the iron trade in this country, their Embreeville furnace was making iron at a figure which would yield a profit, including interest, of from \$2.00 to \$2.50 per ton. The furnace is turning out from 800 to 900 tons of iron per week, and the timber and other interests are in a prosperous condition.

THE Pennsylvania Railroad Co. is building four large coal-yards on the line of the Union Railroad at Eager and Chester streets, in Baltimore, Md. The yards will have a capacity of 2000 tons each. Heavy trestles have been run into this property with a grade up to eighteen feet for the accommodation of dumping cars.

CONSTRUCTION DEPARTMENT.

WE PUBLISH, every week, a list of every new factory, of whatever kind, projected anywhere in the South; every railroad undertaken, and every mining company organized. This information is always fresh, and, by enabling manufacturers to correspond with the projectors of such enterprises before their supplies of machinery have been purchased, is of great value. Manufacturers will find it to their interest to read this department carefully each week.

Means machinery is wanted, particulars of which will be found in "Machinery Wanted" columns.

In correspondence relating to matters reported in this paper, it will be a favor if it is stated that the information was gained from the MANUFACTURERS' RECORD.

ALABAMA.

Anniston—Lime Works.—The Anniston Lime & Coal Co. will erect an additional kiln.

Huntsville—Water Works.—M. A. Castal, of Birmingham, will erect the standpipe for the Huntsville water works.

Mobile—Lumber Mill.—The Mobile Shingle & Manufacturing Co. will erect a new lumber and shingle plant.

Mobile—Hosiery Mill.—N. D. Kyle, of Opelika, Ala., contemplates establishing a hosiery knitting factory at Mobile, Ala.

ARKANSAS.

Gordon—Saw Mill.—The Gordon Lumber Co. is putting new machinery in its mill.

Jonesboro—Electric-light Plant, Water Works, etc.—The Jonesboro Power Co. will have a plant to cost \$19,000. At present, light plant being erected and provision in articles of incorporation for water works and ice plant. Ordinance for water works is now before city council and same will be put in soon. G. W. Decker is president; J. C. Hawthorne, vice-president, and N. F. Lamb, secretary. All machinery and apparatus has been purchased.

Little Rock—Mercantile Company.—The Ehrenberg Co. has been incorporated to deal in liquors and tobacco. The capital stock is \$10,000.

Pine Bluff—Iron Foundry.—The iron foundry of George M. Dilley & Son has been incorporated as the Dilley Foundry Co., with G. M. Dilley, president; G. E. Dilley, vice-president; A. A. Laurin, secretary and treasurer. The company will make extensive additions to its foundry.

Pine Bluff—Distillery.—The Ware Liquor Co. has been incorporated with R. A. Ware, president and general manager; J. B. Borghman, vice-president; Z. J. Wylie, secretary, and R. A. Ware, treasurer. The capital stock is \$5,000.

FLORIDA.

Key West—Cigar Factory.—O. Halloran & Co., lately reported as to enlarge their factory, will erect a new brick factory.

Key West—Cigar Factory.—The E. H. Gato Cigar Co. has been incorporated to manufacture and deal in cigars, etc. The capital stock is \$1,000,000.

Tampa—Brick Works.—The Tampa Brick Co. has been incorporated with J. H. Brown, president; J. G. Fraser, secretary and treasurer, and H. Snyder, manager, to manufacture and sell brick, etc. The capital stock is \$10,000.

Tampa—Novelty Works.—Edenfield & Jetton will erect a new factory for their novelty works.

GEORGIA.

Brunswick—Mercantile Company.—J. H. McCullough, C. Downing and A. J. Crovatt have incorporated the McCullough Export Lumber & Warehouse Co. to buy and sell lumber, etc. The capital stock is not to be less than \$5,000 or more than \$10,000.

Savannah—Mercantile Company.—Solomon Sheftall, G. G. Wilson and W. J. Brotherson have incorporated the Savannah Grain & Provision Co. to conduct a general mercantile business. The capital stock is \$6,000, with privilege of increasing it to \$50,000.

Hinesville—Publishing Company.—The Herald Publishing Co. has been organized with A. G. Cassells, president; J. B. McCall, secretary and treasurer, and R. M. Martin, editor. They have purchased the Hinesville *Gazette*, and will publish it under the title of Liberty county *Herald*.

Madison—Ice Factory.—An ice factory may be built. B. A. Warlick can give information.

Montreal—Furniture Factory.—The Montreal Manufacturing Co. has been organized to erect a furniture factory.

KENTUCKY.

Cynthiana—Creamery.—The Cynthiana Creamery Co. has begun the erection of its plant.

Louisville—Paper Mill.—The Bremer Moore Paper Mill property has been purchased by a Mr. Strauss for \$80,000.

Lexington—Tobacco Factory.—Endeavors are being made to organize a stock company to establish a factory to manufacture smoking and twist tobacco. W. J. Loughridge can inform.

Lexington—Cloth Factory.—Col. W. F. Howe, of Carrollton, is prospecting for a site with a view of locating his cloth factory at Lexington.

Lexington—Baking Powder Works.—Mr. Ferguson has removed his baking powder works from Jeffersonville, Ind., to Lexington.

Mooreland—Bed Spring Works.—Burnett Bros. will establish a bed spring works.

Newport—Aluminum Works.—Chas. L. Hartsfeld, J. C. Jack, N. F. Clark and W. J. Young have incorporated the Hartsfeld Reduction & Aluminum Alloy Co. for the manufacture, production and sale of aluminum, etc. The capital stock is \$100,000.

Winchester—Electric Works.—The McNeill Tinder Co., recently reported as to erect electrical works, has been incorporated with S. P. Kerr, president; C. F. Klein, vice-president; J. H. Tinder, secretary; T. Lansburg, treasurer, and Wm. McNeill, electrician. The capital stock is \$100,000.

New Orleans—Machinery Dealers.—The C. S. Burt Co., Limited, has been incorporated with C. S. Burt, president; S. S. Lees, vice-president, and A. R. Burt, secretary and treasurer, to deal in machinery. The capital stock is \$50,000.

New Orleans—Steam Laundry.—The Louisiana Troy Laundry Co. has been incorporated to conduct a steam laundry. The capital stock is \$15,000.

Shreveport—Shingle Mill.—C. H. Stringfellow will rebuild his shingle mill reported in this issue as burned.

MARYLAND.

Baltimore—Packing Factory.—The Fait & Slagle Co. has been incorporated to conduct a general packing business of canned goods. The incorporators are William Fait, C. W. Slagle, P. F. Winebrenner, C. W. Slagle, Jr., and L. Fait. The capital stock is \$60,000.

Baltimore—Mercantile Company.—The Stewart Fruit Co. has been incorporated by D. B. Stewart, W. T. Tomlinson, J. J. Treanor, R. G. Nicholson and H. P. Stewart. The capital stock is \$10,000.

Baltimore—Bridge.—The Campbell & Zell Co. has been awarded the contract at \$29,932 to erect the new Baltimore-street bridge.

Rock Hall—Land and Improvement Company. G. Warefield, F. C. Latrobe, S. E. Ford, G. M. Sharp and H. L. Griffith, of Baltimore, have incorporated the Rock Hall Land & Improvement Co. to deal in land, etc. The capital stock is \$100,000.

MISSISSIPPI.

Mosselle—Lumber Mill and Electric-light Plant.—W. C. Albertson has put in an electric-light plant and other machinery.

NORTH CAROLINA.

Charlotte—Flour Mill.—The Crowell Milling Co. has been incorporated by W. M. Crowell, A. H. Crowell and T. K. Faulkner. The capital stock is \$10,000 with privilege of increasing to \$20,000.

Fayetteville—Basket Factory.—Endeavors are being made to establish a basket factory.

Fayetteville—Planing Mill.—S. C. Rankin is erecting a planing mill.

Rocky Mount—Tobacco Factory.—The Rocky Mount Tobacco Works has been organized by Messrs. D. F. Davenport, J. M. Sherrod and J. C. Braswell, for the manufacture of smoking tobacco, and will begin operation as soon after the first of January as possible.

Tuckaseegee—Emery Wheel Works.—E. R. Hampton has sold his mill property to Northern capitalists, who will establish an emery wheel works.

Waynesville—Electric-light Plant.—W. P. Welch, of Athens, Ga., contemplates erecting an electric-light plant in Waynesville.

SOUTH CAROLINA.

Conway—Corn Mill.—Will Howell will erect a corn mill.*

Florence—Hedge Fence Company.—The Florence Hedge Fence Co. has been incorporated by J. W. King, G. Hoffmeyer and J. W. McAdam. The capital stock is \$15,000.

TENNESSEE.

Alley—Flour Mill.—A. L. Mansfield will enlarge his flour mill.

Bluff City—Cannery.—H. M. McKay, T. G. Boggs, J. H. T. Martin, J. T. Peters and R. L. Matthews have incorporated the Bluff City Cannery Co. to conduct a general canning business.

Chattanooga—Gas Plant.—The Chattanooga Gas Co. has arranged with the Pintsch Co. for the erection of a Pintsch gas plant.

Chattanooga—Iron Works.—The Cahill Iron Works will enlarge its plant.

Johnson City—Machine Works.—A. B. Bowman, D. S. McIntyre, W. H. Henderson and others have chartered the Valley Machine Co. to manufacture corn planters, drills, etc.

TEXAS.

Beaumont—Electric-light Plant.—The Beaumont Ice, Light & Refrigerator Co. has put in a 450-light incandescent dynamo, and is putting in new boilers.

Carroll's Switch (P. O. Woodville)—Saw Mill—Ducette & MacCrady are erecting a new saw mill.

Houston Heights (P. O. Houston)—Spring-bed Factory.—The Houston Heights Bed Spring & Mattress Co., lately reported as erecting a factory, has been incorporated by E. M. Mallette, Wm. Shannon and F. H. Jones. The capital stock is \$30,000.

Morristown (P. O. El Paso)—Brick Works.—The El Paso Pressed Brick Co., composed of J. G. Morce, J. J. Crawford and McCutcheon & Payne, has been incorporated: works already built and in operation.

Round Rock—Cotton Gin.—John Dirbel will rebuild his cotton gin.*

San Antonio—Baking Powder Company.—The Globe Baking Powder Co. has been incorporated by D. L. Riley, F. M. Hays and C. F. Riley. The capital stock is \$20,000.

San Saba—Flour Mill.—The San Saba Milling Co., lately reported as incorporated with J. H. Martin, president; W. K. Ward, secretary and treasurer, and T. Ward, manager, has contracted with the Nordyke & Mormon Co., of Indianapolis, Ind., for five-break system 75-barrel flour mill to be constructed at once.

VIRGINIA.

Big Stone Gap—Investment Company.—The Jno. R. Proctor Investment Co., lately reported as incorporated, has the following officers: E. M. Hardin, president; J. M. Hardin, vice-president; H. H. Bullitt, secretary and treasurer. The capital stock is \$50,000.

Bonsacks—Woolen Mills.—Bonsacks Bros. will add new machinery in their woolen mill.

Charlotteville—Knitting Mill.—The Monticello Knitting Mill will put in new machinery.

Clairemont—Woodenware and Saw Mill.—The Claremont Manufacturing Co. has been organized to manufacture woodenware. The capital stock is \$10,000. Mann Page can give information.

Fredericksburg—Silk Mill.—Chas. W. Wilder & Co. are erecting an addition to their silk mill, and will increase its capacity by adding new machinery.

Fredericksburg—Woolen Mill.—The Washington Woolen Mills have put in new machinery.

Greenville—P. B. Taliaferro, of Richmond, has purchased the milling plant of the Greenville Land & Improvement Co.

Lynchburg—Drug Mills.—The company recently reported as organized to operate the Lynchburg Drug Mills has been incorporated as the Piedmont Drug Mill Co. with S. W. Nowlin as president and S. P. Malsey, vice-president. Its minimum capital is \$18,000, and its maximum \$40,000.

Richmond—Mercantile Company.—The Old Dominion Fish, Oyster & Produce Co. has been incorporated with T. F. Minor, president, and N. E. Beall, general manager. The capital stock is not to be less than \$5,000 nor more than \$10,000.

Richmond—Trunk Factory.—The H. W. Roundtree & Bro. Trunk and Bag Factory has been incorporated to manufacture and deal in trunks, traveling bags, etc. H. W. Roundtree is president; W. W. Roundtree, vice-president; C. M. Ferrell, secretary and treasurer. The capital stock is to be not less than \$50,000 nor more than \$200,000.

Roanoke—Building Company.—The United Building Co. has been incorporated to buy and sell real estate, etc. J. B. Levy is president and treasurer, and H. M. Daniel, secretary. The capital stock is not to be less than \$10,000 nor more than \$25,000.

Longview, Texas—Railroad.—The Texas, Sabine Valley & Northwestern Railway Co. will hold a meeting on February 13, 1893, to increase its capital stock and issue and execute new mortgages for constructing and operating said road, etc. Wibur F. Herbert, Jr., is secretary.

Longview, Texas—Tramway.—Brown & Flewelling are extending their tramway eight miles.

Lufkin, Texas—Railroad.—W. H. Bonner, J. H. Kurth, S. W. Henderson, A. M. Denman and others have incorporated the Lufkin South & Southeastern Railroad Co. to build a railroad from Lufkin to Lockland. The capital stock is \$250,000.

Moss Point, Miss.—Dummy Line.—The Natchez

WEST VIRGINIA.

Belton—Saw and Planing Mills.—H. S. White is putting in two saw mills and a planing mill.

BURNED.

Shreveport, La.—C. H. Stringfellow's shingle mill; loss \$60,000.

BUILDING NOTES.

Baltimore, Md.—The trustees of the Woman's College will erect a college boarding hall at a cost of \$60,000.

Baltimore, Md.—Thos. M. Kent and others have incorporated the Highland Park Lyceum Co. to erect a building, etc.; capital stock \$12,500.

Bristol, Va.—Jail, etc.—The city will build a jail and househouse. Jos. Combs can inform.

Chattanooga, Tenn.—Hotel.—The Keeley Co. of Tennessee will build on Lookout Mountain a 100-room hotel to cost \$15,000.

Davis, W. Va.—Bank Building.—The National Bank of Davis will erect a bank building.

Sumter, S. C.—City Hall.—The city will issue bonds to erect a city hall. The mayor can inform.

Tullahoma, Tenn.—D. S. Logan will build a bank and office building to cost \$6,000.

Washington, D. C.—Ed Shuffle will erect a \$5,000 frame dwelling, and E. P. Schmitz a \$7,000 brick store and dwelling.

RAILROAD CONSTRUCTION.

Atlanta, Ga.—Electrical Railway.—The Atlanta City Street Railway Co., which was formed in September, has its 8-mile electric line between Atlanta and Decatur, Ga., now under construction, F. I. Stone, of Chattanooga, Tenn., having the contract.

Baltimore, Md.—Railroad.—The Baltimore & Lehigh Railroad Co. has entered into a contract with the Baltimore Forwarding & Railroad Co. for the operation of the Baltimore & Lehigh road and the changing of its gage from a narrow to a standard gage, and work on same will commence as soon as the weather permits. The Baltimore & Lehigh runs from Baltimore to York, Pa., and the whole work of contemplated improvements, including terminals, is estimated to cost about \$1,500,000.

Belington, W. Va.—Railroad.—Jas. H. Hanson, W. G. L. Latten, C. W. Hart, William Post, Thomas S. Farnsworth and John A. Crislip, of Buckhannon, and others have incorporated the Point Pleasant, Buckhannon & Tygart's Valley Railroad Co. to build a railroad from Belington to Buckhannon, and thence to Point Pleasant. The capital stock is \$1,000,000; principal office at Buckhannon.

Cumberland, Md.—Railroad.—Jas. A. Milholand, C. A. Wilson, E. W. S. Moore, Hopewell Webb, of Cumberland, Md., and others have incorporated the Cumberland Railroad Co. to build a railroad from a point on the Piedmont & Cumberland Railroad near Cumberland to Moorfield or Petersburg by way of Mineral, Grant and Hardy counties. The capital stock is \$100,000; principal office at Keyser, W. Va.

Dunnellon, Fla.—Railroad.—The Dunnellon Phosphate Co. is reported as to build a railroad fifteen miles long to connect with the Ambler Lumber Co.'s road at Early Bird.

Frederick, Md.—Electrical Railroad.—A project is afoot for the construction of an electrical railway from Frederick to Hagerstown. Mr. Bosley, of Frederick, is interested.

Hodgenville, Ky.—Railroad.—The Hodgenville & Elizabethtown Railway Co. (office, Louisville) will build a railroad from Hodgenville to Scottsville, a distance of fifty-five miles, and has ordered a survey to be made at once. Work of construction will soon commence.

Jackson, Tenn.—Railroad.—A charter has been issued for the Gulf of Mexico & Tennessee Railroad to extend from Jackson to Middleton to connect with the Gulf & Chicago road. Work on the road is reported as to begin at once.

Longview, Texas—Railroad.—The Texas, Sabine Valley & Northwestern Railway Co. will hold a meeting on February 13, 1893, to increase its capital stock and issue and execute new mortgages for constructing and operating said road, etc. Wibur F. Herbert, Jr., is secretary.

Longview, Texas—Tramway.—Brown & Flewelling are extending their tramway eight miles.

Lufkin, Texas—Railroad.—W. H. Bonner, J. H. Kurth, S. W. Henderson, A. M. Denman and others have incorporated the Lufkin South & Southeastern Railroad Co. to build a railroad from Lufkin to Lockland. The capital stock is \$250,000.

XUM

& Pascagoula Railroad Co. has been incorporated to operate a dummy line from Moss Point and Scranton to Pascagoula Bay.

New Orleans, La.—Railroad.—The Boutte & Hahnville Railroad Co. has been incorporated with a capital stock of \$20,000.

Owensboro, Ky.—Electrical Railway.—R. Monarch, Wilfred Carico and M. V. Monarch have incorporated the Monarch Electric Car & Power Co. to construct an electrical railway. The capital stock is \$500,000.

Pensacola, Fla.—Railroad.—Henry McLaughlin and C. R. Desham, representing Eastern capitalists, have made the citizens a proposition for the building of a railroad from Pensacola to Memphis, Tenn., to be known as the Pensacola, Alabama & Tennessee Railroad. The proposition calls for a \$100,000 donation by the city, and at a meeting of the citizens held on the 20th inst. \$25,000 of the amount was subscribed.

Ross, Texas—Railroad.—It is said that it is also planned to extend the Texas Central Railway (reported last week) from Ross to Waco, and thence to the pine country of East Texas; also to extend westerly into the territory between the Texas & Pacific and the Fort Worth & Denver roads.

Tripp, Ark.—Railroad.—The Louisiana, Arkansas & Missouri Railroad Co., mentioned last week (under Alexandria, La.), does intend letting contract before April 1, 1893, for the extension of its road from Tripp to Bryan City, La.

MACHINERY WANTED

If you desire to purchase machinery of any kind consult our advertising columns, and if you cannot find just what you wish, send us particulars as to the kind of machinery needed. We will make your wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. You will thus get all information desired as to prices, etc.

Belting.—John Dirbel, Round Rock, Texas, will want belting.

Canning Factory.—Belton Mickle, Holly Springs, Miss., wants to correspond with manufacturers of canning-factory outfitts.

Corn-crusher.—D. L. & J. A. Lewis, Sycamore, Ala., want to purchase a corn-crusher.

Corn Mill.—Will Howell, Conway, S. C., wants corn-mill outfit.

Cotton Gin.—John Dirbel, Round Rock, Texas, will want cotton gin.

Cotton-mill Machinery.—W. H. Chaddock, Anniston, Ala., may purchase machines for Bradling solid cord and other cotton-mill machinery.

Crusher.—Street & Spain, Murfreesboro, Tenn., wants a mounted rock-crusher.

Engine.—A. F. Brown, Spruce Bluff, Fla., wants a small gasoline or other engine to run a fan.

Exhaust Fan.—John Dirbel, Round Rock, Texas, may want an exhaust fan.

Fan.—A. F. Brown, Spruce Bluff, Fla., wants a disc fan or exhauster to ventilate the hold of sailing vessel.

Fire Extinguishers.—W. L. Wilson, Tarpon Springs, Fla., wants prices on fire extinguishers.

Flour Mill.—R. K. Shores, Petunia, Va., wants roller flour-mill machinery.

Heating and Ventilating Apparatus.—Sealed proposals for heating and ventilating apparatus for the new public building at Helena, Ark., will be received until January 5 by W. J. Edbrooke, Washington, D. C.

Ice Plant.—R. G. Nicholson, Chestertown, Md., may want ice machinery.

Lathe.—The R. D. Cole Manufacturing Co., Newnan, Ga., wants a 14-inch by 4-foot engine lathe, hollow spindle.

Laundry Machinery.—Joe Gibson, Orange, Texas, wants to buy laundry machinery.

Phosphate Plant.—F. M. Stansbrough, Bartow, Fla., wants machinery for mining pebble phosphate.

Pulleys.—John Dirbel, Round Rock, Texas, will want pulleys.

Roofing.—John Dirbel, Round Rock, Texas, will want corrugated iron roofing.

Roofing.—The Chatham Manufacturing Co., Elkin, N. C., wants to correspond with manufacturers of roofing material.

Scales.—The Triple Wire Nail Machine Co., Huntsville, Ala., wants a pair of foundry scales.

Shafting.—T. H. Nance, Talladega, Ala., wants to correspond with manufacturers of steel and iron shafting from one-quarter inch up to three-quarters inch.

Standpipe.—The Laredo Water Co., Laredo, Texas, will want bids on a standpipe.

SOUTHERN FINANCIAL NEWS.

New Banks.

Bartow, Fla.—The Polk County National Bank and the Bank of Bartow have consolidated.

Brinkley, Ark.—The People's Savings Bank has been incorporated with Parker C. Evan as president, J. J. McNally as vice-president and C. B. La Belle as secretary and treasurer. The capital stock is \$25,000, and business will be commenced on January 2, 1893.

Davis, W. Va.—The National Bank of Davis, fully reported in our last issue, has been authorized to commence business. Thos. B. Davis is president.

Hagerstown, Md.—A. C. Strite and others have applied to the comptroller of the currency for authority to organize the People's National Bank.

Jasper, Fla.—A bank will soon be organized.

Laredo, Texas.—The First National Bank has reorganized with W. S. Darland, president; F. R. Malone, vice-president, and F. R. Malone, cashier; capital stock \$75,000.

Morgan City, La.—T. J. Clay, Chas. Lehman, C. P. Shaver and others have incorporated the Bank of Morgan City with a capital stock of \$25,000.

Washington, N. C.—A. M. Dumay and associates have applied to the comptroller of the currency for authority to organize the First National Bank of Washington.

Atlanta, Ga.—A bill has passed the legislature to authorize the city to issue \$250,000 of additional water works bonds.

Baltimore, Md.—The Merchants & Miners' Transportation Co. has declared a semi-annual dividend of 4 per cent.

Birmingham, Ala.—The Birmingham Trust & Savings Co. has declared a dividend of 3 per cent.

Cumberland, Md.—The Cumberland & Elk Lick Coal Co. has declared a dividend of 1½ per cent.

El Paso, Texas.—The date of holding the election reported last week has been changed to January 17. An issuance of \$205,000 in bonds at the rate of 5 per cent. will be considered. The mayor can inform.

Houston, Texas.—Hayes & Son, of Cleveland, Ohio, have purchased \$10,000 of city bonds at \$12.25 premium. The bonds are 30-year 6 per cent.

Laredo, Texas.—The city council has passed an ordinance authorizing the issue of \$125,000 in bonds to cancel \$10,000 of outstanding bonds, \$10,000 outstanding warrants, and to build a schoolhouse. The mayor can inform.

Manchester, Va.—The city has called in its 6 per cent. 10-year bonds dated January 1, 1882. They are payable after January 1; J. W. Bramaugh, Jr., city treasurer.

Middlesborough, Ky.—A 10 per cent. dividend on the assets of the People's Bank was declared on the 14th inst. W. E. Cabell, receiver.

Newberry, S. C.—The National Bank of Newberry has declared a dividend of 50 per cent. This large dividend is due to the bank reducing its surplus by \$75,000.

New Orleans, La.—The Jefferson City Gaslight Co. has declared a semi-annual dividend of 4½ per cent.

New Orleans, La.—The St. Charles Hotel Co. has declared a dividend of 5 per cent.

New Orleans, La.—The New South Building and Loan Association has declared a semi-annual dividend of 5 per cent. on its stock from first to twenty-third series, inclusive, and 4 per cent. on stock from twenty-fourth to thirty-first series, inclusive.

New Orleans, La.—The New Orleans City & Lake Railroad Co. has declared a quarterly dividend of \$1.75 a share.

New Orleans, La.—The State National Bank has declared a semi-annual dividend of 4 per cent.

New Orleans, La.—The New Orleans Gas Light Co. has declared a semi-annual dividend of \$2.50 per share.

Richmond, Va.—The Merchants' National Bank has declared a semi-annual dividend of 3½ per cent.

Richmond, Va.—The Fire & Marine Insurance Co. has declared a semi-annual dividend of 5 per cent.

Richmond, Va.—The Virginia State Insurance Co. has declared a semi-annual dividend of 3 per cent., the People's Building, Loan & Trust Co. a semi-annual dividend of 5 per cent., the Richmond Perpetual Building, Loan & Trust Co. a semi-annual dividend of 5 per cent., the Merchants & Planters' Savings Bank a semi-annual dividend of 2 per cent., and the National Bank of Virginia a dividend of 3 per cent., the Granite Perpetual Building Fund Co. a semi-annual dividend of 4½ per cent., and the Savings Bank of Richmond a semi-annual dividend of 8 per cent.

Richmond, Va.—The National Bank of Virginia has declared a dividend of 3 per cent.

Savannah, Ga.—The Oglethorpe Savings & Trust Co. has declared a semi-annual dividend of 3 per cent.

Savannah, Ga.—The Chatham Bank has de-

clared a semi-annual dividend of 3 per cent. and passed \$10,000 to its surplus account.

Savannah, Ga.—The Citizens' Bank of Savannah has declared a semi-annual dividend of \$3 per share.

Sumter, S. C.—A bill authorizing the city to issue bonds has passed the legislature. The mayor can inform.

West Point, Ga.—The city will hold an election in February to decide upon issuing the improvement bonds reported last week. The mayor, H. T. Woodyard, can be addressed.

TRADE NOTES.

The new "Atherton" mill at Charlotte, N. C., is named after the senior member of the firm of Potter & Atherton, Pawtucket, R. I.

The Knowles Loom Works, of Worcester, Mass., has an order for a dozen new looms for the Worumbo Woolen Mills, at Lisbon Falls, Me.

A. T. SHOEMAKER, dealer in railway supplies and equipment, has removed his office from 146 Broadway to the Boreel building, 115 Broadway, New York.

The Rochester Machine Tool Works, Limited, of Rochester, N. Y., writes us that the year just closing has been the most prosperous in the history of the company.

The Crompton Loom Works, of Worcester, Mass., has placed several very handsome orders since election, and is running its works to the full limit in every department.

J. LAUGHLIN & CO., Limited, of Pittsburgh, have ordered from the Akron Tool Co. a full equipment of McNeil patent balanced charging barrows for the Eliza furnace at Pittsburgh.

The Petree Machine Co., of Newton, Upper Falls, Mass., is in receipt of an order from the Nashua Manufacturing Co., Nashua, N. H., for fifty of its revolving top-flat cards.

The Potter & Atherton Co., Pawtucket, R. I., has received the order for all of the cotton operators and lappers for the new mill of the Georgia Manufacturing Co., White Hall, near Athens, Ga., which is being built on the site of the one recently destroyed by fire.

The Wilmington City Electric Co., of Wilmington, Del., has placed the contract for a new boiler-house with the Berlin Iron Bridge Co., of East Berlin, Conn. The building will be made entirely of brick and iron, from the designs of the Berlin Company.

The New Pittsburg Coal Co., of Columbus, Ohio, has contracted with the Jeffrey Manufacturing Co., of the same place, for a second plant of its coal-mining machines. The New Pittsburg Company has used the Jeffrey mining machines for over eight years, and the above order is for an electric plant.

DELEW & BAILEY, electrical and mechanical engineers, of Baltimore, Md., and others are considering the admissibility of constructing an extensive electric-power plant for Baltimore. The plan now being considered includes the use of some streams in the vicinity of the city as the source of power.

OWING to a large fire and damage occasioned by water, Frasse & Co., manufacturers of machinists' tools at 90-94 Park Row, New York, will be delayed a few days in making shipments of goods. They announce that in three or four days at the outside they will be able to get things in shape and will then fill all orders with their usual promptness.

The Curtis Steel Roofing Co., of Niles, Ohio, has just accepted another order for heavy corrugated iron, painted with graphite paint, for the Pennsylvania Steel Co., Steelton, Pa.; also an order for No. 26 gauge corrugated iron for the Penn Iron Co., Limited, Lancaster, Pa. Its machinery is all new, of the latest design, and excellent work is being turned out.

THE Hughes Steam Pump Co., of Cleveland, Ohio, has found it necessary to establish a branch office and salesroom in Chicago to take care of its rapidly increasing business. The new branch is located at 65 S. Canal street, in the heart of the machinery district of the World's Fair city, and is in charge of Mr. Henry O. Skinner, who will be glad to welcome his many friends.

The works of the Chattanooga Machinery Co., located some distance from the city of Chattanooga, Tenn., will be removed to a central location in that city. This change will place the company in a more favorable position for carrying on its business of founders and general machinists. The company will early in the new year establish a machinery supply house in connection with its manufacturing operations.

J. W. TAYLOR, Southern agent for the Stilwell & Bierce Manufacturing Co., of Dayton, Ohio, has sold to the Georgia Manufacturing Co., of Atlanta, Ga., two horizontal 32½-inch water

wheels in an iron flume. These will operate under twenty-one feet head and give 291 6-10 horse-power. The wheels will be set twelve feet above the tail water and supported on iron columns. The sale included draft tubes, feed-pipe, 8x36-inch drum, etc.

THE Lidgerwood Manufacturing Co., New York, has recently established a branch office at 505 Main street, Louisville, Ky., which will be in charge of Mr. Samuel L. Avery as sales agent. Mr. Avery was formerly president of B. F. Avery & Sons' plow works, and has a wide acquaintance throughout the territory (Kentucky and Tennessee) in which he will represent the Lidgerwood Company. It is interesting to note that there are now over 9,000 of the famous Lidgerwood hoisting engines in use.

STEPHENS & GRAHAM, of Chicago, Ill., write M. Hoagland, of Rockaway, N. J., as follows: "We are so well satisfied with the rock-breaker you shipped us for the Anglo-Florida Phosphate Co., that you may ship as soon as possible another to the Chicago-Florida Phosphate Co., Early Bird, Fla. Your machine is all you claim for it—a veritable rock-eater," and its fast-feeding, double-acting jaws, together with its hammered steel shafts and strain bars, are features not to be overestimated. You may use our names as reference."

THE Aultman-Taylor Machinery Co., Mansfield, Ohio, reports the following sales of their celebrated Cook boiler: 100 horse-power for the Lake Erie Iron Co., Cleveland; two 100 horse-power for the Union Rolling Mill Co., Cleveland; 650 horse-power for the Union Iron & Steel Co., of Youngstown, Ohio; 200 horse-power for the Mahoning Valley Iron Works, Youngstown, Ohio; 425 horse-power for Brown, Bonnell & Co., Youngstown; 125 horse-power for the Pittsburgh Republic Iron Works at Pittsburg. Prospect for trade the coming season are good.

THE entire equipment of the Boston Heating Co., 464 Atlantic avenue, Boston, Mass., will be offered for sale at auction on Saturday, January 21, 1893, at 10 o'clock A. M., on the premises. The property comprises tubular and sectional boilers, engines, steam pumps, fan blowers, dynamos, tanks of various sizes, lathes and drills, piping, valves, etc., and will be sold to the highest bidder. The sale is a most important one, and will doubtless attract a large attendance. Full particulars will be found in the advertisement in another column.

THE Penberthy Injector Co., of Detroit, Mich., report such an increase in sales of its Penberthy injector that the capacity of its present factory has been taxed to its utmost during the past year. The large sale of its new specialty, the safety crankpin oiler, together with the fact that it already has contracts for between 3,000 and 4,000 injectors for the coming season, has decided it to remodel its present factory, making such additions as will enable it to at least double the amount of machinery in use and so to more than double its output during the coming year. The new factory will be three stories in height, covering a ground space of 10x120 feet, and will be so planned and arranged as to make it a model factory for turning out goods.

THE following are recent equipments and installations made by the United States Aerophor Air-Moistening Co., of Providence, R. I.: The Rotch Spinning Co., of New Bedford, Mass., in their picker, carding and spinning rooms, forty apparatus; the Pierce Manufacturing Co., of New Bedford, Mass., in their two weave-rooms, forty-six apparatus; the Bristol Manufacturing Co., of New Bedford, Mass., in their spinning and weaving departments, sixty-eight apparatus; the Arlington Mills, of Lawrence, Mass., in their combing-room—this is the fourth installation made for this company. The Grosvenor Dale Co. has placed an order with the United States Aerophor Air-Moistening Co., of Providence, R. I., for one of their aerophor fabric dampeners.

THE Delbert Engineering Co. (Limited), of New Orleans, La., report the following sales of magnesium sectional covering during the past few weeks: Henderson Sugar Refinery, New Orleans; James H. Aitkens & Co., New Orleans; J. Henry Putnam, Abbeville, La.; V. Schwan, Centreville, La.; Louisiana Retreat for the Insane, New Orleans; Louisiana Electric-Light & Power Co., New Orleans; Crescent City Ice Factory, New Orleans; C. Ciancione, Oakley plantation, on Bayou Lafourche, La.; Municipal Ice Co., New Orleans; James Stewart & Co., Southport, La.; T. B. Lynd, New Orleans; Garratt plantation, Bayou Sale, La., and H. P. Kernocharan, Scarsdale plantation, La. It reports business in general as being very good. The Delbert Company has increased its facilities by fitting up its plant with new fixtures, and is ready for 1893.

THE United States Court of Appeals has granted the injunction asked for by the Edison General Electric Co. against the Sawyer-Man Co. (Westinghouse). The injunction is a permanent one forbidding the latter company to manufacture incandescent lamps infringing the Edison patent. The court imposes the condition that the Edison Company must sell lamps for use with Westing-

house apparatus installed prior to Judge Wallace's decision of July 14, 1891, "upon terms reasonable under the circumstances of the particular case." No provision whatever is made for supplying lamps to Westinghouse apparatus installed since July 14, 1891, or that may be hereafter installed, and the question of terms, prices, etc., for lamps for use with apparatus installed before that date is left open, except that they must be "reasonable under the circumstances of the particular case."

MR. H. S. CHADWICK, for a number of years past the Southern agent of the Franklin Machine Co., of Providence, R. I., has severed his connection with that company, and will enter into business for himself as the head of the Charlotte Machine Co., at Charlotte, N. C., making a specialty of cotton-mill equipment. Mr. Chadwick will be the exclusive Southern agent of the following well-known New England companies: The Potter-Atherton Co., of Pawtucket, R. I., makers of openers and lappers; Easton & Burnham, Pawtucket, spindles and spoolers, and Fales & Jenckes, Pawtucket, spinning and twisting machinery; Geo. W. Stafford Manufacturing Co., Providence, R. I., looms; Pettee Machine Co., Newton, Mass., carding and drawing frames; Providence Machine Co., roving machinery; B. F. Sturtevant Co., Boston, heating and ventilation.

THE Joseph Dixon Crucible Co., of Jersey City, N. J., manufacturers of Dixon's "American graphite" pencils, are putting a fifth story, 175x75 feet, on their pencil factory. During the past summer and fall they have been unable to promptly fill their orders for Dixon's pencils, even though working their already superior facilities to their full capacity. It was, therefore, decided to push toward the work at once instead of waiting until spring, as intended. The new addition will be equipped with new and improved pencil machinery of their own invention. The Florida cedar and American graphite will start in and come out of Dixon's new machinery in "round" and "hexagon" shape, "regular size" or "tablet," "full length" or "pocket," for "office," "school," "carpenters'" or "artists'" use, in "satin," "ma-roon," "ebony," "cedar" or "natural" finish, and in the thousand and one styles which we now have our pencils served to us. Besides this large addition to their pencil factory, the company will establish a rubber and brass plant for the manufacture of the various pencil accessories and novelties. As it was only in 1891 when the Dixon Company put extensive additions on their crucible and black-lead works, and erected offices which for size and beauty are second to none in the State, it is very evident that prosperity claims the Dixon Company for its own, and that the company is well officered and wisely managed.

THE J. H. McEwen Manufacturing Co., of Ridgeway, Pa., reports the following sales: Scranton Glass Co., Scranton, Pa., one eighty horse-power simple engine; Rix & Burrell, San Francisco, Cal., two thirty-five horse-power simple; Moffett, Hodgkins & Clarke Co., Marshfield, Wis., two one-horse power simple; Rank of New York, New York, two fifty horse-power simple; Perry Electric-light Co., Perry, Iowa, one one-horse power simple; Charlottesville Universal Electric-light & Gas Co., one 125 horse-power tandem compound; Horton Land & Lumber Co., Parfield, Mo., one 250 horse-power simple; Moffett, Hodgkins & Clarke, Medina, N. Y., one one-horse power tandem compound; Old Pittsburgh Coal Co., Hymera, Ind., one one-horse power simple; Hope Lumber Co., Hartlon, Texas, one eighty and one 300 horse-power simple; John E. DuBois, DuBois, Pa., one sixty horse-power simple; DuBois Traction & Passenger Railway Co., DuBois, Pa., one 120 horse-power simple; M. Falkenau & Brother, Chicago, three seventy horse-power simple; O. L. Packard Machinery Co., Milwaukee, Wis., one thirty-five horse-power simple; Marx & Rawle, 163 William street, New York, one seventy horse-power simple; Jeffrey Manufacturing Co., Columbus, Ohio, one 125 horse-power, one 140 horse-power and one 160 horse-power; H. P. Gregory & Co., Portland, Ore., one thirty-five horse-power; Edison Electric Co., LaGrande, Ore., one 140 horse-power; Central Railroad Co., New Jersey, two thirty-five horse-power simple.

THE E. W. Bliss Co., Limited, of Brooklyn, N. Y., write us as follows: "The past twelve months have witnessed by far the greatest enlargement and most extensive improvements in our works which have taken place during the history of our concern. After amalgamating with our business that of the Stiles & Parker Press Co., we decided to move their entire plant to our Brooklyn works. Partly to accommodate the increase of our business in that direction, we put up an additional building 120 feet long by 90 feet wide and six stories high. Our machine shops now occupy the entire block bounded by Adams, John, Pearl and Plymouth streets, and enclose in the centre an erecting shop for heavy machinery, spanned by a 10-ton electric traveling crane. We have put in a large number of new machine tools, and are building some large boring and milling machines specially adapted for our peculiar requirements. Gigs and special devices for the rapid and accurate production of our standard machines are being put into use more extensively than ever. We have also equipped a portion of our works

with special machinery for the manufacture of Whitehead torpedoes and torpedo guns, which we are making on contract with the United States Navy Department. The development of this branch of our business has called for much mechanical skill and elaborate investigations, not to speak of the large investment. All of our departments have been well filled with orders during the year. The prospects are thoroughly good and we expect to make further extensions of our facilities."

THE Swedish Ceramic Manufacturing Co., of Chicago, a co-operative company consisting of eighty-five Swedish-Americans, broke ground Monday morning for its new building in which it will manufacture fancy tilings, glazed brick and the Swedish kakelungar, or tile stoves. Edward Barratt, a Swedish architect, has prepared the plans for the building, which will front eighty-five feet on Troop street and has a depth of 128 feet. There will be two stories in front and a tall brick chimney in the right centre. The estimated cost of the building and real estate is \$15,000. It is the intention to have the factory completed within three months and some of their wares ready for exhibition at the fair. The men are all experienced clay workers, and their familiarity with European and American clay and methods of working it is almost a guarantee that the enterprise will be a success from the start. This will be the first attempt at manufacturing the kakelungar in America. A few of these tile stoves were in the Swedish exhibit at the Centennial, and were afterwards sold to some New York people at many times their value. Since that time tile stoves have become popular, and have been quite extensively imported, but this adds to their cost that they can be afforded only by the very wealthy. The Chicago Ceramic Company claims that it will be able to furnish them at reasonable figures, when it expects to see the kakelungar supersede the grate and mantelpiece in America, as it has done to a great degree in Europe. The kind of clay that will be used has not been decided upon. A representative of the company is now traveling over the country examining and testing the several clays known to possess some of the necessary qualities for the successful manufacture of fancy tilings.

TRADE LITERATURE.

C. H. DEAPWOLF & Co., of York, Pa., manufacturers of fertilizer machinery, have issued a calendar for 1893, in which an interesting feature is that of giving with each month some of the important events of the Columbian year and of the voyages of Columbus. On the last page of the calendar is an excellent biographical sketch of Christopher Columbus.

THE Covert Manufacturing Co., of West Troy, N. Y., has issued a new discount sheet of wholesale prices in which some changes in both list price and discount appear. The discount sheet has several new features that will save the trade great deal of time and trouble. The sheet gives the catalogue page, name of article, its number, list price and discount.

THE Jeffrey Manufacturing Co., of Columbus, Ohio, has in preparation a new illustrated catalogue for 1893 which will be the most complete it has ever published. The catalogue will contain 250 pages and be fully illustrated, showing all lines of material manufactured, including chain hoisting, engineering specialties and coal-handling and mining machines. It will be useful to all users of machinery. By January 1 it will be ready for distribution.

THE Pope Manufacturing Co., of Boston, has issued what is known as the Columbia desk calendar and stand, consisting of a pad of 366 leaves, one for each day in the year and one for the entire year. Upon each leaf are short sermons on the gospel of "Out-of-Door Happiness and Health," with authoritative advice on national roadmaking by the most eminent experts. The pad rests upon a metallic stand arranged to take up very little room, and is indeed an indispensable article for the desk.

THE Shultz Belting Co., of St. Louis, Mo., has issued a useful little pamphlet of information on the selection and management of machine belting. The tables on driving power and horse power transmitted, and also various rules for finding width of belt required and similar matters, will prove valuable to all users of belt for the transmission of power. The pamphlet is one which will be of great interest and service to engineers and others, as giving in compact form much useful information on the subject of belts.

THE Phenix Iron Works Co., of Cleveland, Ohio, has issued a neat catalogue showing the varied line of hand, steam and hydraulic cranes which it produces. These are suitable for all purposes, and include pivot, overhead travelers, locomotive and derrick cranes in all sizes. The different forms are illustrated and described in a brief but comprehensive manner, enabling the intending purchaser to see at a glance the possibilities of each and its adaptability to the use he has in mind. The catalogue is one which will com-

mend itself to everyone who handles heavy material.

THE Burton Electric Co., of Richmond, Va., has issued an interesting little pamphlet describing the Burton electric heaters and especially their adaptability to electric railway cars. Plans for wiring and instructions for regulating the current are given both by diagram and explanatory text. The appearance, cleanliness, safety and economy of the heaters are carefully treated, and the cost of operation as compared with coal stoves is given in detail. Numerous testimonial letters are printed in the back part of the pamphlet, all of them highly gratifying as to the service which has been performed and the economy in actual use. Taylor, Goodhue & Ames, 827 Monadnock block, Chicago, Ill., have been appointed general agents for this heater. It is stated in the pamphlet that the Ahearn patents for electric heaters and cooking devices are infringements on the Burton patents.

OPPORTUNITIES FOR INVESTMENT

We shall be pleased to answer communications and give information concerning the following opportunities for investment. Address all correspondence to the MANUFACTURERS' RECORD, Baltimore, Md., and be particular to give the number of the advertisement to which you refer.

No. 6—PHOSPHATE LAND near Eureka, Fla., in the phosphate belt. It is heavily timbered with long-leaf pine; also a small tract near Fort Meade, Fla. Several small tracts in Marion, Orange, Lake, Polk, Pasco and Putnam counties, Fla., suitable for orange and vegetable growing.

No. 7—A MANUFACTURING COMPANY in Texas desires to place \$28,000 ten-year 8 per cent. mortgage bonds, the total issue being \$60,000, of which \$32,000 has already been sold. The proceeds are to be used for final payments on machinery and for working capital. The bonds are secured by the entire property of the company, consisting of factory building, machinery and real estate, all of which has a clear title and is free of any encumbrance.

No. 8—PHOSPHATE LAND.—600 acres pebble phosphate land within one and one-half miles of two important and competitive railroads. Extensive deposits in sand and marl matrix from two to fifteen feet deep, and ranging from 30 to 80 per cent pebble. Analyses show from 60 to 80 per cent phosphate of lime.

No. 9.—A tract of land located in the suburbs of Macon, Ga., and admirably adapted to manufacturing purposes, is offered for sale at reasonable price. The property is at the junction of three railroad lines, has abundant water supply, labor can be obtained cheaply, and all conditions requisite for industrial enterprises are present.

No. 10.—About 16,000 acres of mineral and timber land in one tract in North Carolina can be purchased cheap. The minerals are copper, iron, silver and nickel.

No. 11.—A tract of about 10,000 acres of timber land near Bristol, Tenn. Contains also several large deposits of iron ore which will soon be accessible by railroads now under construction.

No. 12.—About 17,000 acres of coal and timber land in Scott and Wise counties, Virginia, near to both the Norfolk & Western and South Atlantic & Ohio Railroads.

No. 13.—A copper ore property is for sale in North Carolina. There is an extensive deposit of ore upon which some development has been done with results that indicate the existence of a valuable property.

No. 14.—A woodworking concern in Virginia, engaged in the manufacture of interior wood-work, with a well-established trade and an abundance of orders in hand, desires to secure \$10,000 of additional capital to increase the plant and enable more advantageous purchases of material. It is desired that the investor of additional capital in this company shall assume its financial management. The business is well organized, has good plant, and is making money. The addition of more capital will greatly increase its facilities and earning power.

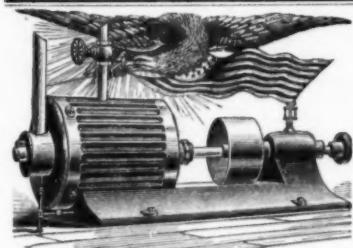
No. 15.—A fine tract of timber property in North Carolina, aggregating about 1,200 acres and covered with hardwoods and pine, can be secured at a reasonable figure. About one-quarter of the property is cleared and is admirable farming land. There are buildings upon the tract which could be utilized to good advantage for manufacturing purposes. There is a railroad station within one mile of this tract.

No. 16.—A valuable coal property in Tennessee, which is well under development, shipping coal regularly and earning a handsome return upon its value, can be purchased at a low figure. The property is sure to earn, under proper management, 10 to 15 per cent per annum on the price that is asked for it. The property has been in operation about two years, and the mines are well established, and the shipping facilities are excellent.

No. 17.—We have knowledge of a large and very valuable granite property in Virginia, which is available for development and which ought to prove a very good investment. The property lies two and one-half miles from the Norfolk & Western Railroad, and very favorable arrangements can be made for the construction of a side track to the quarry. The property has never been developed, but could be opened at once at small expense. The granite is of excellent quality, admirably suited for building purposes. The color ranges from pale pink to purple, and the stone is susceptible of a high polish. There are quarries not far distant upon the same vein which are furnishing stone that has a wide reputation.

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UNITED STATES ENGINEER OFFICE, NEWPORT, R. I., November 26, 1892.
SEALED PROPOSALS, in triplicate, for dredging in Newport Harbor, R. I., will be received at this office until 12 M., noon, on the 10th day of January, 1893, and then opened. The attention of bidders is invited to the Act of Congress approved February 26th, 1885, and February 2d, 1887, Vol. 21, page 332, and Vol. 24, page 414, Statutes at Large, and the Act of August 1, 1892, Sections 1 and 2 (Public No. 193). The United States reserves the right to reject any or all proposals and to waive any formalities. Full proposals furnished on application. W. H. BIXBY, Captain Corps of Engineers, U. S. Army.

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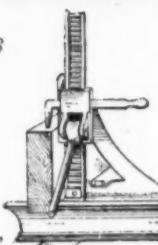
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The Greenville Land & Imp. Co., Greenville, N. C.
Guilford Lumber Mfg. Co., Greensboro, N. C.
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G. Vyne & Son, Wilkesboro, N. C.
John Hickson & Co., Lynchburg, Va.

Cypress.

Morris & England, Keo, Ark.
Cypress Lumber Co., Sherrill, Ark.
T. O. Wilson Lumber Co., Tilar, Ark.
Nuchner & Brown, Peach Orchard, Ark.
Moline Lumber Co., Helena, Ark.
J. M. Milburn & Bro., Greenway, Ark.
J. C. McCain, Greenway, Ark.
W. R. Emerson, Emerson, Fla.
J. C. Purleigh, Midland, Fla.
F. S. Hanberg, Jasper, Fla.
S. J. Temple, Temple's Mills, Fla.
J. P. Little, Sumner, Fla.
Geo. H. Barker, Waldo, Fla.
A. A. Bunnell, Raulerson, Fla.
Windemere Land & Lumber Co., Windemere, Fla.
Kelly, Cosby & Co., Jug Tavern, Ga.
Dietrich & Dopson, Lenox, Ga.
W. T. McArthur, McArthur, Ga.
W. H. Moxley & Co., Macon, Ga.

W. R. Peterson & Co., Wadley, Ga.
Lawless & Kyle, Franklin, La.
Louisiana Cypress Lumber Co., Harvey, La.
Callahan & Lewis Mfg. Co., Patterson, La.
McEwen & Murray, New Orleans, La.
Hanson & Smith, Wilmington, N. C.
J. C. Fulton, Arkansas Pass, Texas.
Calcasieu Lumber Co., Austin, Texas.
M. T. Jones & Co., Childress, Texas.
J. H. Folkey, Korville, Texas.

Hardwoods.

North Alabama Lumber Mfg. Co., Bridgeport, Ala.
Bridgeport Lumber Co., Bridgeport, Ala.
Hill & Mitchell, Center Star, Ala.
W. A. Koepell, Coalting, Ala.
Decatur Lumber Co., Decatur, Ala.
H. S. Freeman, Decatur, Ala.
Black Warrior Lumber Co., Demopolis, Ala.
Alabama Lumber & Mfg. Co., Gurley, Ala.
G. Vaughan, Hollywood, Ala.
C. G. Huffman, Hollywood, Ala.
Clifton & Hendrix, Jasper, Ala.
Elliott & Carter, Jasper, Ala.
W. M. Beatty, Austin, Ala.
J. W. Ray, Arkadelphia, Ark.
Desha Lumber Co., Arkansas City, Ark.
Batesville Lumber Co., Batesville, Ark.
Russell & Elder, Beebe, Ark.
South's Hardwood Lumber Co., Black Rock, Ark.
E. M. Ford Land & Timber Co., Gilmore, Ark.
Kelley & Wells Lumber Co., Newport, Ark.
Cream City Lumber Co., Lamberthville, Ark.
J. M. Mefert, Lowell, Fla.
Ray & Geise, Bronwood, Ga.
Altamaha Cypress Lumber Co., Brunswick, Ga.
Montford & Mithell, Butler, Ga.
Glasgow & Henderson, Cassville, Ga.
Green & Eshum, Clay Hill, Ga.
W. H. Allen, Cordele, Ga.
Greer Bros., Adn, Ga.
D. T. Harris, Dixon, Ga.
W. T. Opie, Dover, Ga.
A. J. McMullen, Hartwell, Ga.
Matthews & Anderson, Knoxville, Ga.
R. W. Ballard, Newton Factory, Ga.
O. W. Wadley, Rogers, Ga.
L. T. B. awner, Adairville, Ky.
G. W. Hammer, Adairville, Ky.
W. Conn & Son, Bedford, Ky.
Snider Bros., Berea, Ky.
Gibson & Hale, Flat Lick, Ky.
J. L. Naylor, Wickliffe, Ky.
Samuel Anglen, Lafayette, Ky.
H. E. Miller, Lewisburg, Ky.
Fetter Cochran & Co., Louisville, Ky.
J. C. Williamson, Mouth of Pond, Ky.
The Cumberland Co., Middlesborough, Ky.
Waters & Bringhurst, Pineville, La.
J. H. McBride, Winnfield, La.
The Loomis & Hart Mfg. Co., Chattanooga, Tenn.
John Hoagland, Spring City, Tenn.
Jas. M. Williams, Charlottesville, Va.
Smith & Co., Reedy Ripple, W. Va.
Shelly & Wrigman, Romney, W. Va.

Shingles.

A. C. Danner, Mobile, Ala.
J. Bradley, Hartsell's, Ala.
Concuh & Patsaliga Lumber Co., Luverne, Ala.
G. N. Buchanan, Luverne, Ala.
J. D. Cameron & Son, Mobile, Ala.
Mobile Shingle Co., Mobile, Ala.
Mountain & Sons, Mobile, Ala.
C. G. Richards & Son, Mobile, Ala.
Stewart & Butt, Mobile, A'a.
Gulf States Lumber Co., Montgomery, Ala.
D. Goulet & Co., Black Rock, Ark.
F. McKay, Black Rock, Ark.
Camden Shingle Mill Co., Camden, Ark.
Price Lumber Co., Paragould, Ark.
Carey & Ollinger, Bagdad, Fla.
A. L. Wellman & Co., Beresford, Fla.
Florida Shingle Mills, Brooksville, Fla.
W. Springfield & Son, Brooksville, Fla.
Mearns Shingle Mill, Davenport, Fla.
Wm. A. McCann, Jacksonville, Fla.
A. G. Russel, Oviedo, Fla.
Little & Chapman, Rosewood, Fla.
Atlanta Lumber Co., Atlanta, Ga.
P. G. Grant, Atlanta, Ga.
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King & Bursch, Hawkinsville, Ga.
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Baily Bros., Toccoa, Ga.
Mayfield Shingle Co., Wishart, Ga.
Worth Lumber Co., Worth, Ga.
G. W. Cleere, Coalton, Ky.
Monroe Smith, McKinney, Ky.
The J. H. Poe Shingle Co., Lake Charles, La.
Harris & Thornton, Chattanooga, Tenn.
E. Cravens, Bagwell, Texas.
L. Miller Shingle Co., Orange, Texas.
Kizer Lumber Co., Texarkana, Texas.
Frits Sitterding, Richmond, Va.
Gurley & Rogers, Norfolk, Va.
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F. W. Sharp & Co., Larkinsville, Ala.
J. R. Adams & Son, Longview, Ala.
Montgomery Stave & Bldg. Co., Montgomery, Ala.
J. C. Sheets & Co., Montgomery, Ala.
P. V. Deland, Black Rock, Ark.
Hammett & Bailey Stave Co., Greenway, Ark.

Arkansas Stave Works, Greenway, Ark.
J. F. Hasty & Son, Paragould, Ark.
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Wilson Bros., Piggott, Ark.
Backus Bros., Pine Bluff, Ark.
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Tampa Lumber Co., Tampa, Fla.
Hagan & Platt, Pine Level, Fla.
R. H. Brewer, Cedarville, Ga.
Georgia & Tennessee Lumber Co., Laconia, Ga.
F. H. Waring & Co., Cement, Ga.
Allen & Briggs, Bardwell, Ky.
F. B. Freeman, Cumberland Falls, Ky.
Johnson & Overshiner, Hopkinsville, Ky.
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George D. Eike, New Orleans, La.
E. O. Felton, Ronceverte, W. Va.
J. Beckwith & Co., Waverly, W. Va.

Railroad Ties.

W. J. Felt, Greenup, Ky.
G. & A. Kopp, Louisville, Ky.
Southern Tie & Lumber Co., Louisville, Ky.
James S. Pope, Halls, Md.
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Jacob Wise & Son, Fulton, Ky.
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Hendersonville Mfg. Co., Hendersonville, N. C.
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Thomasville Spoke Works, Thomasville, N. C.
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Southern Real Estate Directory.

For the convenience of the many readers of the MANUFACTURERS' RECORD it has been deemed advisable to collect under this head a reliable list of Realty Agencies of the Southern States. The value of such a list for the purpose of Ready Reference will immediately become apparent to all who are interested in the growth of this section.

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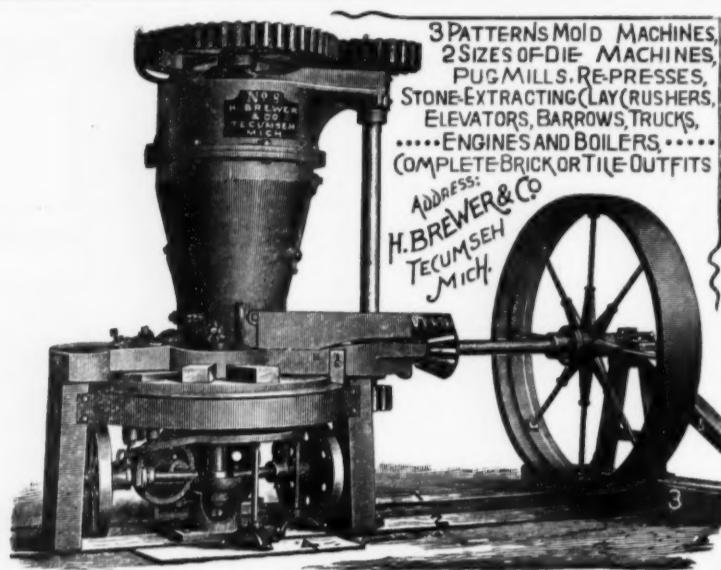
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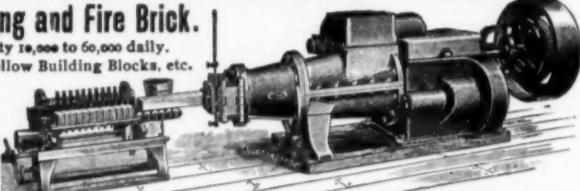
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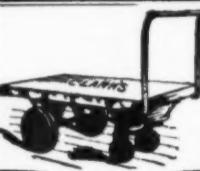


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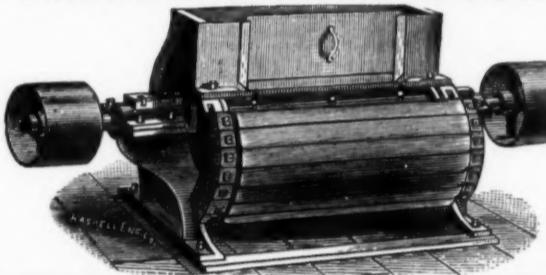
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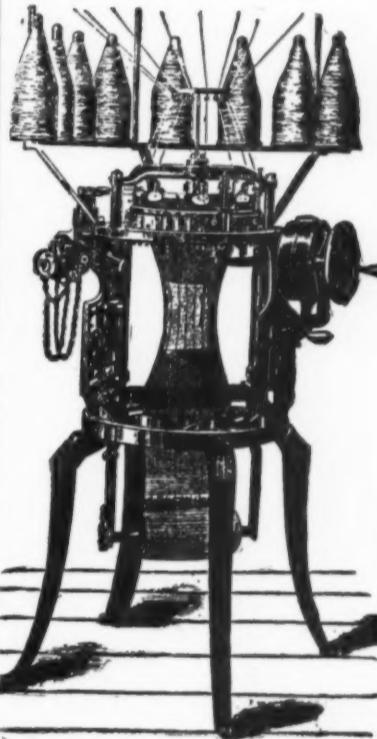
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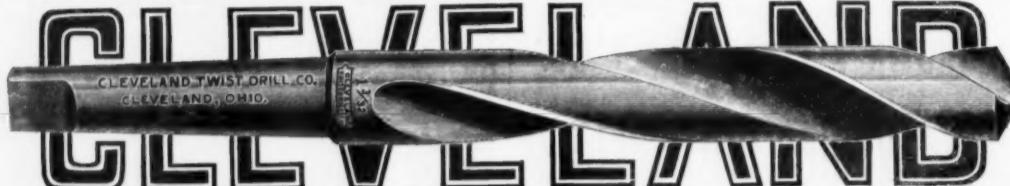
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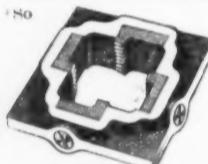


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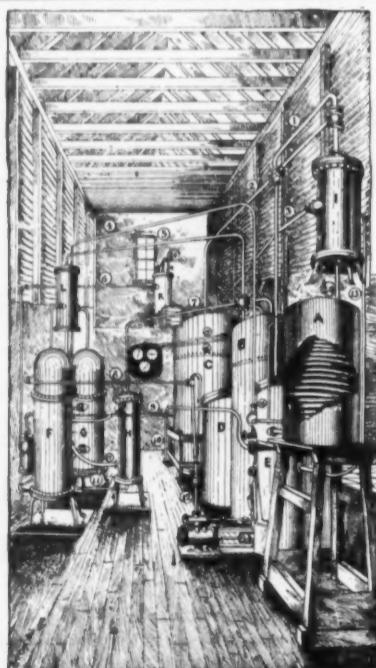
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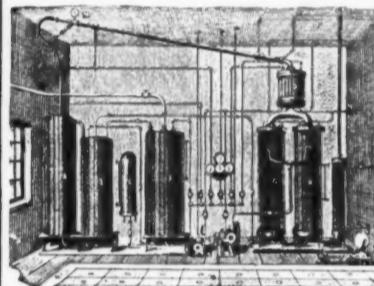
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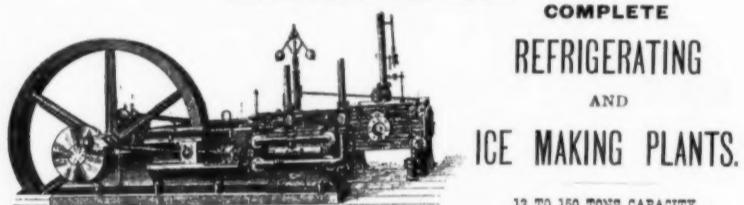
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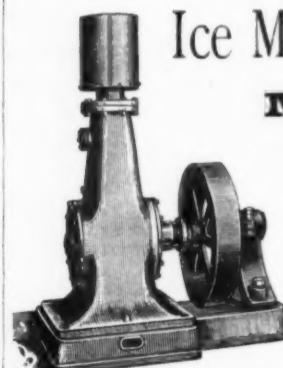


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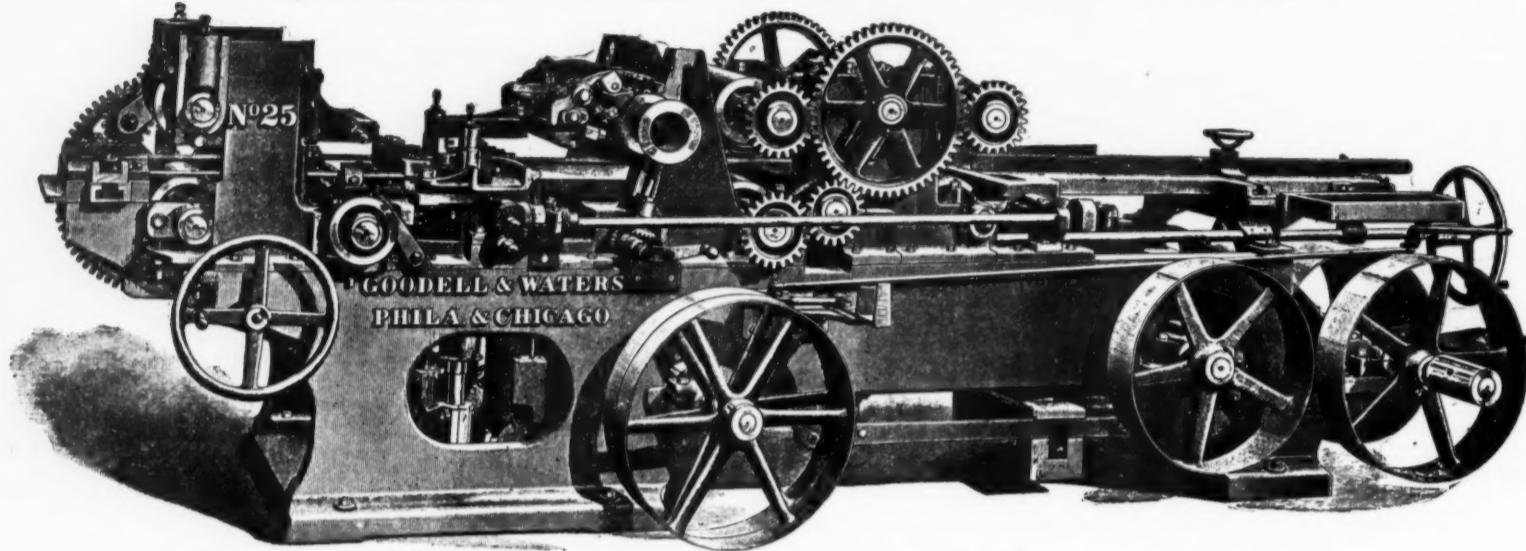
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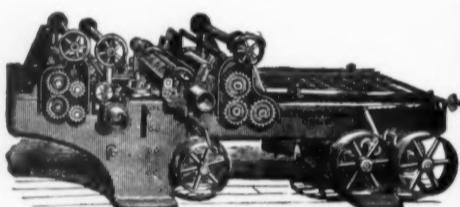
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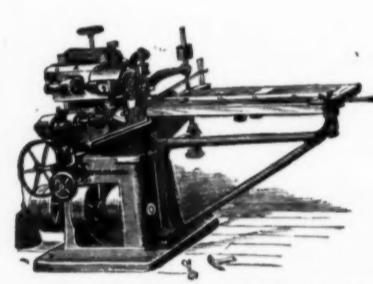
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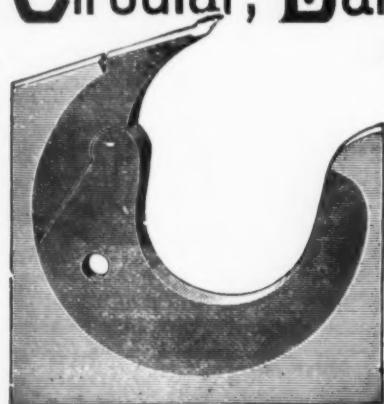
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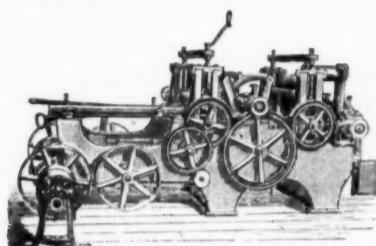
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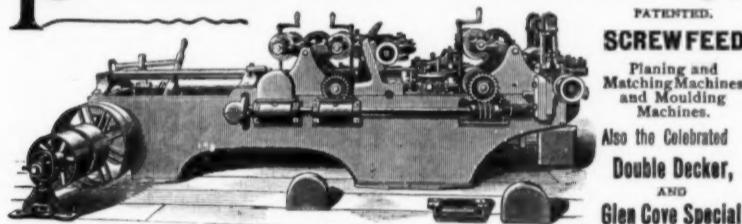
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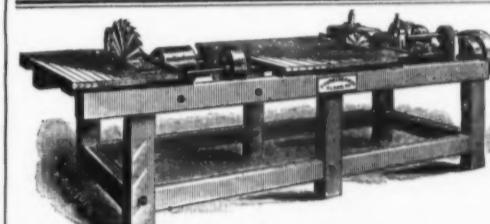
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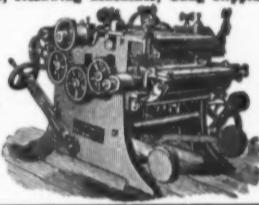
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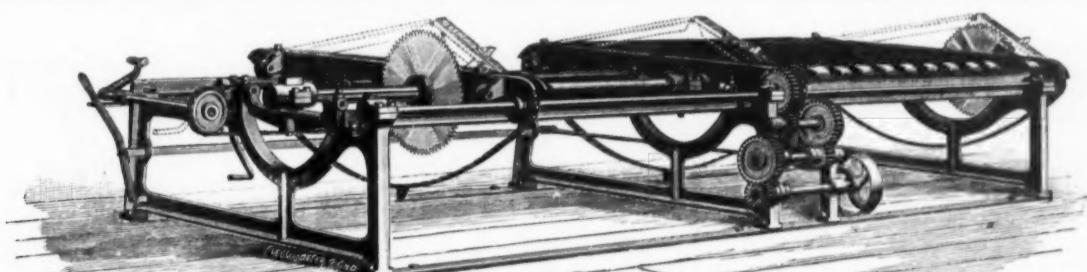
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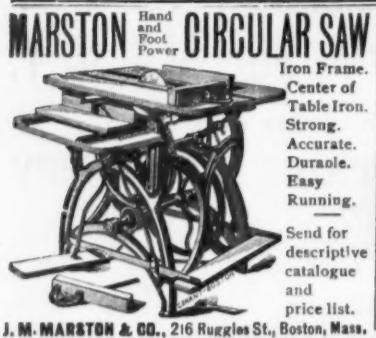
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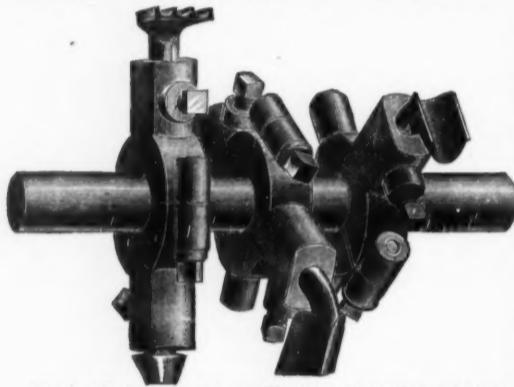
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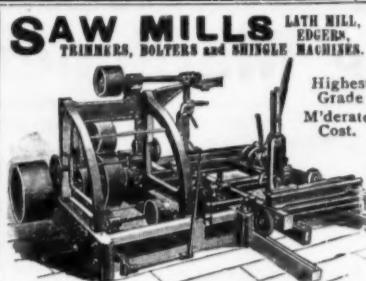
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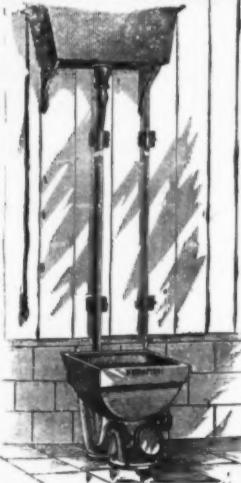
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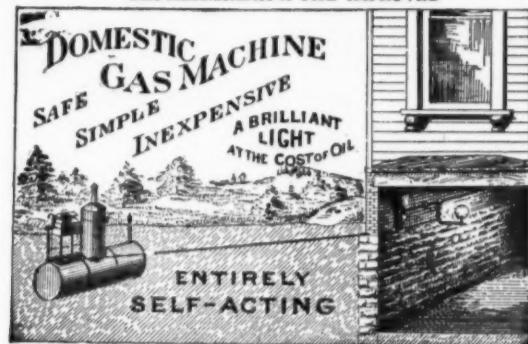
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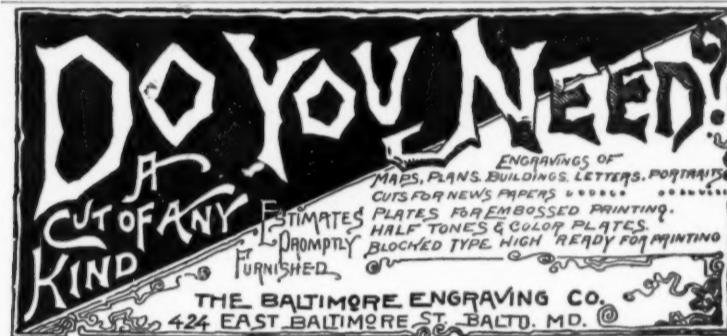
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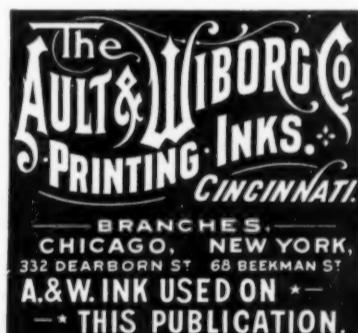
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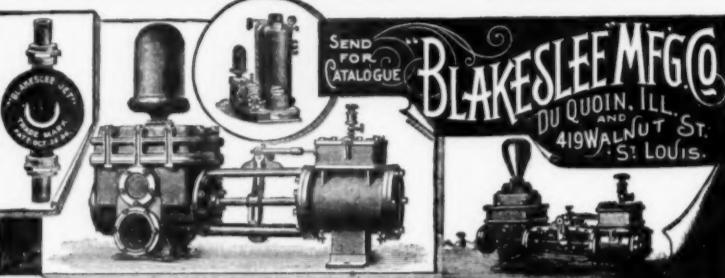
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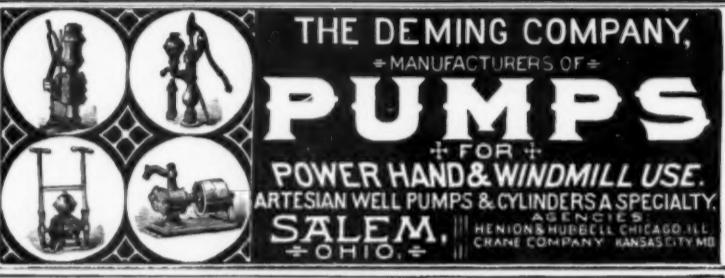
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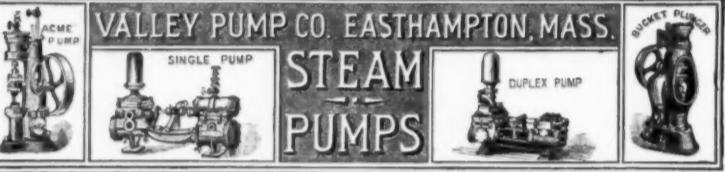
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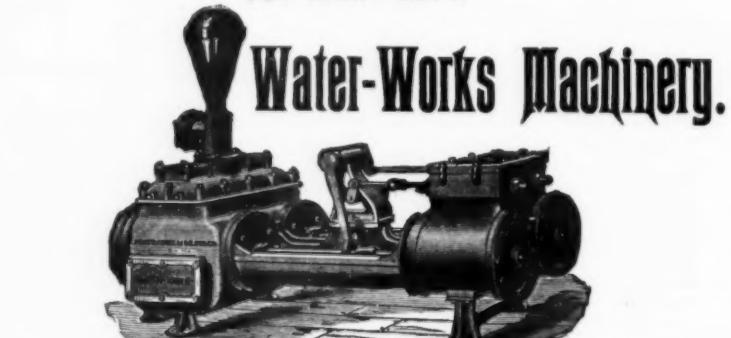
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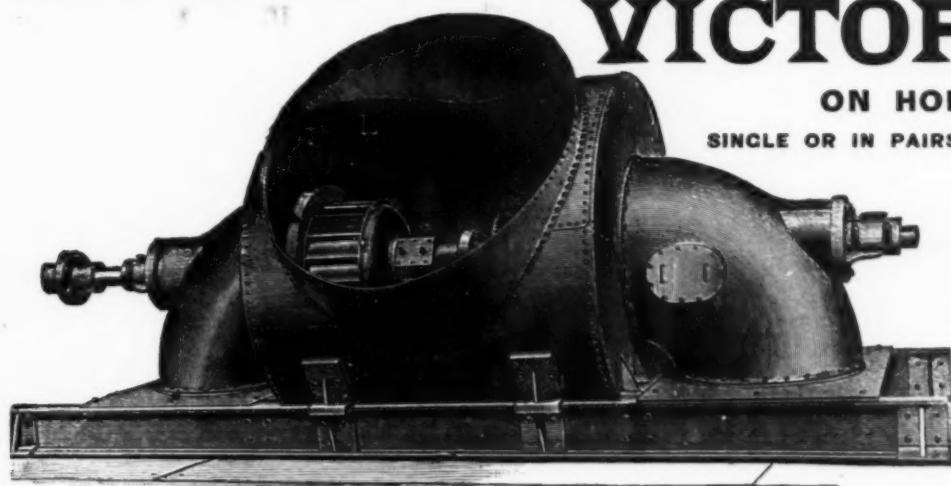
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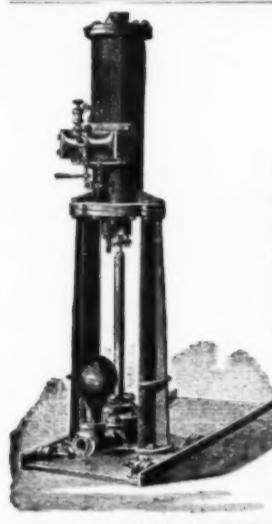
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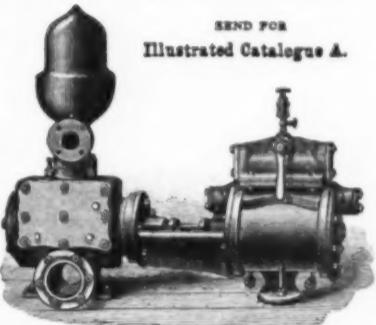
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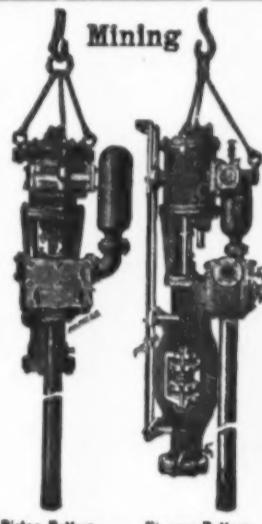
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BONDS, CERTIFICATES OF STOCK, COMMERCIAL STATIONERY,

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SHOWCARDS, LABELS

AND COLOR WORK GENERALLY.

Write for Samples and Prices.

HOTEL, Overlooking Central Park,

Fifth Avenue
58th and 59th
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The Highest
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The water and ice used are vaporized and
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The Most Direct Route Between

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BEAUTIFUL SCENERY and QUICK TIME.
NO CHANGE OF CARS.

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20 Miles Shorter than any other line
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4 Through Trains in each direction
Daily.

The Favorite Route to Lake Chautauqua,
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Short and Only Direct Route Between

CLEVELAND, CAMBRIDGE, AKRON, CANTON MARIETTA and WHEELING.

Four Through Trains Daily between Cleveland, Akron and Canton. Through Pullman Palace Drawing Room Buffet Sleeping Cars between Cleveland and Chicago. Ask for tickets via Valley and B. & O. Route.

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—THE— SHORT AND POPULAR LINE

BETWEEN

Cleveland, Canton and Zanesville.

No change of cars between Cleveland and Zanesville.

Three trains each way between Cleveland and Canton.

Finest Day Trains in the State. Cars heated by steam from locomotive.

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Given Away by the C. H. & D.

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From Cincinnati.

A magnificent album of World's Fair views has been published by the Cincinnati, Hamilton & Dayton, which will be sent to any address on receipt of 10 cents in stamps. The Cincinnati, Hamilton & Dayton, in connection with the Monon Route, is the only line running Pullman perfected safety vestibuled trains with dining cars from Cincinnati to Chicago. The "Velvet" trains of the Cincinnati, Hamilton & Dayton are admittedly the "Finest on Earth," and the line is a representative "World's Fair Route." For tickets, rates, etc., address any Cincinnati, Hamilton & Dayton agent. To get an album send your address, with 10 cents in stamps, to E. O. McCORMICK, G. P. & T. Agt., Cincinnati, O.

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BETWEEN

Toledo and Ohio River Points,
STUBENVILLE, WHEELING, PITTSBURGH and
MARIETTA.

THROUGH COACHES to the OHIO RIVER,
and THROUGH CONNECTIONS to
PITTSBURGH

And all points East, via Akron, Cuyahoga Falls, Kent, Ravenna, Leavittsburg, Warren, Niles, Girard, Youngstown, New Castle and Allegheny. The only line ticketing its passengers through to Philadelphia, New York and New England Cities, via Washington and Baltimore at SHORT LINE RATES.

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Traffic Manager. Gen. Pass. Agt.

RICHMOND AND YORK RIVER LINE.

On and after MONDAY, February 2, 1892, the
steamers of this line leave Baltimore daily (Sunday excepted) at 5 P. M. for West Point, Richmond and the South, arriving at Richmond at 9.10 A. M., connecting with trains of the Richmond & Danville System. Steamer leaving Mondays, Wednesdays and Fridays calling at Gloucester Point and Allmond's Wharf; steamer leaving Tuesdays, Thursdays and Saturdays calling at Yorktown and Clay Bank. Through tickets and bills of lading issued to all points of the Richmond & Danville System. Way freight must be prepaid. Fare to Richmond, first class, \$2.00, second class, \$1.50. Tickets sold and baggage checked at Geigan & Co.'s, 202 East Baltimore Street.

REUBEN FOSTER, E. J. CHISM,
General Manager, Gen. Freight & Ticket Agt.
Office, 530 LIGHT STREET.

THE BAY LINE

FOR
Fortress Monroe, Norfolk and the South.

The Bay Line comprises the New and Elegant Steamers
"VIRGINIA," "CAROLINA" and "FLORIDA."

All the Comforts and Luxuries of a first-class Hotel are
afforded the traveler. A spacious and elegant Saloon and
State-rooms, furnished with an especial view to comfort.
Unsurpassed Cuisine, which is made a specialty with this
line. Elephants, Lions and other animals, etc., are shown. Steamers
leave Baltimore daily (except Sundays) at 9 A. M.

At Old Point Comfort is located the splendid HYGEIA
HOTEL, a Delightful Resort at all seasons of the year.
For tickets and information apply to Company's Office,
157 W. BALTIMORE STREET, BALTIMORE.

Or on Board of Steamers.
D. J. HILL, Superintendent.
E. BROWN, General Ticket Agent.

THE FAVORITE PASSENGER ROUTE.

MERCHANTS & MINERS'

Transportation Company.

Steamers sail from Baltimore Md., TO BOSTON,
Mass., VIA NORFOLK, every TUESDAY,
THURSDAY and SATURDAY at 2 P. M.
FARE—First-Class, \$10.00 Round Trip, \$20.00.

Second-Class \$8.00.
FOR PROVIDENCE, R. I., every TUESDAY
and THURSDAY at 2 P. M.

FOR SAVANNAH, Ga., every TUESDAY and
FRIDAY at 3 P. M. Fare—First class, \$15.00;
round trip, \$25.00; second class, \$10.00.

Baltimore TO JACKSONVILLE, Fla.—First
class, \$20.65; round trip, \$36.30; steerage, \$12.50.

All tickets include meals and stateroom accom-
modations. Through tickets sold and baggage
checked to all points South.

For sailing schedules and other information,
apply to A. L. HUGGINS, Agent,
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ATLANTIC TRANSPORT LINE.

BETWEEN BALTIMORE AND LONDON.

Calling at Swansea and Philadelphia on the
outward passage.

S. S. MINNESOTA, 5,000 tns. S. S. MISSOURI, 3,000 tns

S. S. MARYLAND, 4,200 tns. S. S. MICHIGAN BLDG.

S. S. MONTANA, 4,200 tns. S. S. MISSISSIPPI, BLDG.

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BALTIMORE STORAGE & LIGHTERAGE CO.

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FROM

BRUNSWICK to LIVERPOOL and BREMEN.

The Only South Atlantic Direct Line to European ports.

SHORTEST ROUTE TO EUROPE.

Commencing September 10th, 1892, the following
Steamships will make regular sailings from
Brunswick, Ga., to Liverpool and Bremen:

Steamship Tons. Master.

WIVENHOE, 1,893 CLARK.

HAY-GREEN, 1,869 BLACK KLAW.

J. M. LOCKWOOD, 2,773 JENKINS.

STORRA-LEE, 1,734 BAILEY.

DEERHILL, 1,733 BAINBRIDGE.

Additional Steamships will be placed on the
line as business warrants.

S. S. DEERHILL will sail from Liverpool for
Brunswick September 1st.

S. S. HAY-GREEN will sail from Brunswick
for Liverpool September 10th.

Consignments solicited to all points in United
Kingdom and Continent of Europe.

For Freight, Passage and general information
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THE BRUNSWICK TERMINAL CO.

General Agents, BRUNSWICK, GA.

Or Messrs. C. E. DeWOLF & Co., Agents,

28 Brunswick Street, Liverpool, England.

NORTH WILKESBORO,

NORTH CAROLINA,

One of the Conspicuous Successes of the Year in Town Building,
Presents the Following Record:

Population March 4, 1891, actual count, 48.

Population March 4, 1892, actual count, 348.

Gain in one year 625 per cent.

Townsit purchased November 11, 1890; act of incorporation passed by the Legislature, March 4, 1891; first lot sold at private sale, May 12, 1891. Within the first year of its existence ten miles of streets have been graded, and \$22,000 spent in public improvements. Where prior to March 4, 1891, there was only a farm settlement without pretensions to being even a village, there is to-day a thriving, busy, growing, trading and manufacturing center, with

A Large Well-Kept Hotel,
The Bank of North Wilkesboro, \$40,000 Capital,
A large Livery and Sale Stable,
Two Large Wholesale Stores,
One Hardware Store,
One Furniture Store,
Ten General Merchandise Stores,
Three Saw Mills, Sash and Blind Factories,
One Foundry and Machine Shop,
A Handsome, Well-Edited, Home Print Newspaper, The North Wilkesboro News,
One School,
Two Churches Under Way,

Two Brick Yards in operation, and a number of other enterprises practically secured.

Arrangements are about completed for a Woolen Mill.

A large iron front brick block, containing Bank Building, two Store Rooms, Opera House, and Printing Office; A graded School Building and an Iron Bridge across the Yadkin River, in the Eastern part of town, will be completed during the spring and summer.

Turnpike roads to Tennessee and Virginia are about completed; county roads leading into town are being improved and numerous good new ones built, with the intention of making this the center for all the wagon trade of this section.

A tobacco warehouse for the sale of the high grade leaf of this district will be built during the summer, so as to give a home market for the tobacco crop that will be grown this year.

Compare this record with that of any other new town you have heard of during the past dull season.

NORTH WILKESBORO,

Is 75 miles west of Winston-Salem, at the present terminus of the Northwestern North Carolina Railroad, which when ultimately completed to Bristol, Tenn., will give the shortest route between Norfolk and Cincinnati. North Wilkesboro is the most important trading point between Winston-Salem and Bristol, and is in the center of the great undeveloped mineral and timber district of Northwestern North Carolina, being by United States Postal Map on an air line 75 miles southeast of Bristol, 45 miles east of Cranberry, N. C., 40 miles north of Statesville, 45 miles northeast of Hickory, 90 miles northeast of Asheville, 45 miles southeast of Mt. Airy, and 80 miles south of the Norfolk & Western Railroad, in the valley of the Yadkin, between the Brushy Mountains on the South and the Blue Ridge on the North. Climate, healthfulness, water, drainage and location unsurpassed by any town in North Carolina.

The townsit consists of 1,088 acres, located, by the way on a farm originally owned by General John B. Gordon's grandfather. The first public auction sale of lots was held December 2, 1891, and 188 lots were sold. Purchasers have in many cases been able to resell at a handsome profit. The company has sold 50 lots at private sale since then, on many of which houses are now being erected. It is a significant fact that among the business buildings erected a large per cent. are substantial brick structures, while for architectural beauty and cost many of the residences are much superior to those usually found in a town so young.

At the second auction sale, May 11th, 1892, 35 business lots and 44 residence lots sold for \$16,490, an average of \$8.35 per front foot, which is \$2.53 per front foot (or 44 per cent.) more than the average at the sale last December, which was the best sale made in North Carolina during last year. Since the sale, a contract has been closed for the location of another large saw mill, planing mill, sash, door and blind factory combined, which will do a large shipping business. A contract is closed for the location of extract works with a capital stock of \$300,000. The plant will cost \$125,000 and will cover six acres of land. Twelve families from the North will move down. The company will erect a large electric-light plant in connection with the extract works. North Wilkesboro will get there and will not be long doing so.

Through the townsit runs a stratum of serpentine stone, 200 feet in width, and also a bed of iron ore equal in quality to that of Cranberry. The Town Company also owns 4,100 acres of mineral, granite and timber lands in Wilkes County. It is probable that the work of developing the great mineral and timber interests of the section will be commenced in a short time, and on an extensive scale.

Sites will be donated and stock subscribed to such manufacturing enterprises as may be advantageously located here.

The policy of the Company is a most liberal one in this respect, it being determined to aid all legitimate enterprises to any reasonable extent. There are 328 miles of water courses within the borders of Wilkes County, furnishing to the vicinity of North Wilkesboro a water power as great as Fall River. The climate, while not moist, is neither harsh nor dry, and is especially suitable to the spinning of fine cotton yarns, such as cannot be made in the extreme South or North. There is also a fine opportunity here for bleacheries, to the establishment of which at Southern points there is a tendency at present. As they can't go where sluggish streams, impregnated with vegetable matter, abound, the quick flowing streams of clear mountain water, so numerous about North Wilkesboro, afford everything desired. Numerous other industries will do well at North Wilkesboro, and will be most substantially encouraged to locate there.

Capitalists, Home Seekers, Health Seekers, Manufacturers of wood and iron, and many other industrial workers may well investigate North Wilkesboro's advantages.

The above-described townsit and other property belongs to the Winston Land & Improvement Co., which was chartered by act of Legislature, session of 1887; ratified March 4, 1887, chapter 82. Authorized capital \$1,000,000. Present capital stock \$125,000, all subscribed and paid up.

OFFICERS—G. W. HINSHAW, President, of Hinshaw & Medearis, Wholesale Merchants; Vice-President People's National Bank, Winston, N. C. DR. W. L. BROWN, Vice-President, of Brown Brothers, Tobacco Manufacturers, Winston, N. C. W. F. TROGDON, Secretary and Treasurer, North Wilkesboro, N. C.

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W. F. TROGDON, Secretary and Treasurer,

NORTH WILKESBORO, N. C.

As A LOCATION for Manufactures

Of Iron and Wood and for General Industrial and
Business Enterprises.

FRONT ROYAL, VA.

INVITES INVESTIGATION.

Its location, at the junction of the Norfolk & Western Railroad (Shenandoah Valley line) and the Richmond & Danville's branch, give it excellent transportation facilities. It is only a few hours' ride distant from Washington. The Norfolk & Western's direct line to Washington will be built from Front Royal.

There is no Finer Agricultural Country in the World than the Famed Shenandoah Valley, in which Front Royal is Located.

A WIDE RIVER WITH SWIFT CURRENT FURNISHES WATER POWER
AND MAKES DRAINAGE PERFECT.

Front Royal is a Prosperous Town, with an Extensive Mercantile Business
and Many Manufacturing Enterprises in Operation and
Under Construction.

INVESTIGATION OF ITS ADVANTAGES IS INVITED BY THE

Front Royal--Riverton Improvement Company,
FRONT ROYAL, VIRGINIA.

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Chandler & Taylor Co.	20	H	Hackney Hammer Co.	12				
Charleston Lead Co.	11	Haden, C. J.	24	Haines, Jones & Cadbury Co.	34			
Chase, John C.	6	Harrington, E., Son & Co.	9	Harrington & King Perforat'g Co.	30			
Chattanooga Fdy. & Pipe Works.	37	Harris, H., & Co.	25	Harrisburg Fdy. & Mch. Works.	19			
Chester Steel Castings Co.	12	Harris, H. W., & Co.	25	Hartford, R. F.	6			
Church, Isaac.	26	Hartford Steam Boiler Inspection & Insurance Co.	*	Hartman Mfg. Co.	35			
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Coates, Ernest.	10	Hartman Mfg. Co.	*	Harrington, F. J., & Son.	*			
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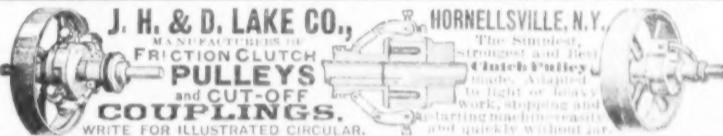
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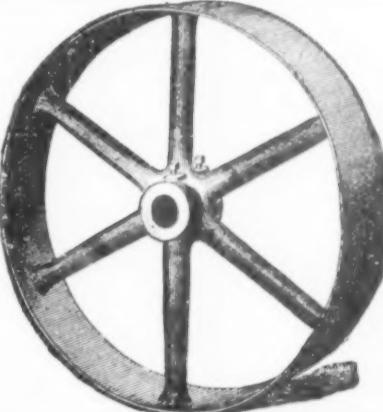
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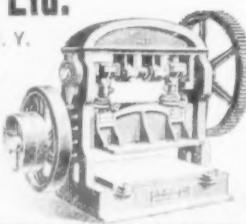
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